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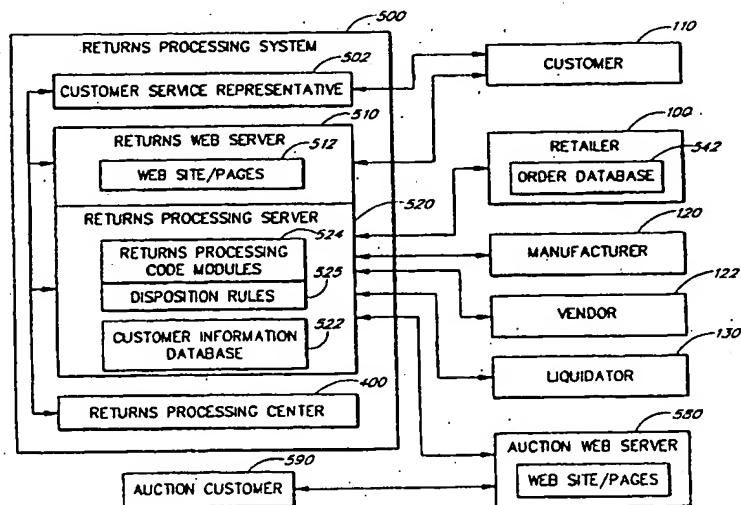
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(54) Title: PRODUCT RETURN SYSTEM AND METHODS.



(57) Abstract: A returns processing system (500) includes a web server (512) through which customers (110) request returns and provide information as to the condition of the product. Based at least upon the condition of the product indicated by the customer, the customer is instructed to ship the product to one of: a returns processing center (400) for further inspection, a retailer (100) for restocking, the manufacturer (12) or vendor (122), a liquidator (130), or a trash service. Indicated product condition information is associated with the customer in a database (522). Upon receipt of the product, the product condition is observed and associated with the customer. An accuracy score for information provided by each customer is determined based upon the correlation between the provided product condition information and the observed product condition information for each product. The accuracy score is used in determining where to have the customer ship subsequent products to be returned.

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## PRODUCT RETURN SYSTEM AND METHODS

Background of the InventionField of the Invention

5 This invention relates generally to the field of reverse logistics and, more particularly, the invention relates to systems and methods for handling the return of products purchased from catalog or web-based retailers.

Description of the Related Art

Remote purchase and delivery is becoming an increasingly popular way for consumers to make purchases and receive purchases from retailers. Home or office delivery allows the shopper to avoid the hassle of making a special trip to a retailer's sales floor to purchase a product. Instead, the shopper shops using a catalog or the World Wide Web (web) and places an order through the mail, phone, or the web. Purchases are typically delivered by a shipper such as the postal service or United Parcel Service (UPS). For larger or heavier items, other shippers can be used. In some cases, the retailer has its own delivery service.

10 Many new companies that receive orders exclusively on the web are being formed. These companies typically provide products only via delivery. In addition, existing "bricks and mortar" stores with sales floors have also set up web sites through which remote purchases are made. The elimination of the conventional sales floor allows catalog and web based retailers to decrease overhead substantially.

Oftentimes, after a purchase, a consumer is dissatisfied with a product and wishes to return the product to a retailer for credit. The process of handling returns from consumers and disposing of returned goods is generally referred to as reverse logistics. Although the field of reverse logistics is well developed in the area of conventional "bricks and mortar" retail stores, new problems and opportunities are being presented with the increased popularity of remote purchase and delivery. For example, unlike traditional retailers, web based retailers do not have the opportunity to examine a product before they decide whether to authorize a return. Many new web based retailers have not even implemented reverse logistics procedures.

20 Several web based retailers have allowed returned merchandise to just pile up in their corporate offices, not knowing what to do with it. The present invention seeks to provide techniques that will allow remote purchase and delivery retailers to more efficiently handle product returns. The present invention may also, however, be advantageously applied in the context of conventional bricks and mortar returns processing.

30 Summary of the Invention

A returns processing system is preferably operated by a returns processing business entity to handle returns for several catalog or web based retailers. The returns processing system preferably includes a web server through which returns are handled and a returns processing center to which returns are shipped by customers. The system receives products to be returned at the center, inspects the products, and determines what to do with each product. The products are then preferably sent to the retailer for restocking, to the product manufacturer or product vendor if defective, to a liquidator, or to a trash service. Received products may also be sold individually or in bulk in on-line auctions or through on-line or conventional discount stores.

The condition of each product is preferably requested from the customer in connection with each return. The system uses the provided condition to determine where to have the customer ship the product. In many cases the product can be shipped directly to the retailer, the liquidator, the manufacturer, or the vendor, bypassing the returns processing center. The

returns processing system preferably also maintains a database of customer information. The product condition supplied by a customer is preferably associated with the customer in the database. Upon receiving the product, the system preferably also associates the observed condition of the product with the customer. An accuracy score for information provided by each customer is preferably determined based upon the correlation between the provided product condition information and the observed product condition information for each product. The accuracy score is preferably used in determining where to have the customer ship subsequent products to be returned.

One embodiment of the invention is a returns processing system. The returns processing system includes a returns processing center. The returns processing system also includes a returns processing server configured to make determinations of how to proceed with the disposition of returns based at least upon retailer-supplied disposition rules. The returns processing server can be configured to receive product condition information from an entity receiving a product. The returns processing system can also include a customer information database. The returns processing center can be configured to receive products originally purchased from a plurality of different retailers. The returns processing system can also include a returns web server. The returns web server can be configured to receive requests from customers of a plurality of retailers to return products to the retailers from which the products were purchased. The returns processing system can also include an auction web server. The auction web server can be configured to list returned products for sale on Web-based auctions.

One embodiment of the invention is a method including receiving a request from a customer of a retailer to return a product purchased from the retailer. The method also includes instructing the customer to ship the product to a third party. The method also includes receiving notice from the third party of the receipt of the product. The method also includes notifying the retailer of the receipt of the product. The method can also include entering an agreement with the retailer to handle the return of products purchased from the retailer. The third party can be a liquidator. The third party can be the manufacturer of the product. The third party can be the vendor of the product.

One embodiment of the invention is a method including selling a product to a customer. The method also includes shipping the product to the customer. The method also includes receiving a request from a customer to return the product. The method also includes instructing the customer to ship the product to a third party. The method also includes receiving notice from the third party of the receipt of the product. The method also includes crediting the customer for the return of the product. The method can also include receiving credit from the third party in exchange for the product. The third party can be the manufacturer of the product. The third party can be a liquidator. The third party can be a returns processing center. The third party can be the vendor of the product.

One embodiment of the invention is a method for handling product returns. The method includes (A) receiving a plurality of products, wherein each of the products is received from a respective customer who purchased the product from a respective retailer. The method also includes (B) identifying at least one of the products as capable of being restocked as new. The method also includes (C) sending the products identified in (B) to the respective retailers from which the products were purchased. The method can also include (D) identifying at least one of the products as suitable for sale at auction and (E) selling the products identified in (D) at auction. The method can also include (F) identifying at least one of the products as defective and (G) sending the products identified in (F) to the respective manufacturers of the products. The method can also include (H) identifying at least one of the products as defective and (I) sending the products identified in (H) to the respective vendors of the products. The method can also include sharing proceeds resulting from the disposition of the products with the respective retailers from which the products were originally purchased.

One embodiment of the invention is a method including entering an agreement with a retailer to handle the return of products purchased from the retailer by customers of the retailer. The method also includes receiving from a customer of the retailer a product purchased from the retailer. The method also includes selling the product at auction. The method can also include notifying the retailer of the receipt of the product. The method can also include sharing the proceeds of the auction  
5 sale with the retailer.

One embodiment of the invention is a method including receiving disposition rules from a retailer. The method also includes receiving, from a customer of the retailer, a product purchased by the customer from the retailer. The method also includes inspecting the product. The method also includes proceeding with the disposition of the product according to the rules. The method can also include entering an agreement with the retailer to handle the return of products purchased from  
10 the retailer by customers of the retailer. The method can also include notifying the retailer of the disposition of the product. The method can also include sharing proceeds resulting from the disposition of the product with the retailer. The disposition rules can associate product conditions with disposition actions. Proceeding with the disposition of the product can include determining that the product is capable of being restocked as new, and sending the product to the retailer.

One embodiment of the invention is a method including receiving, from a customer of a retailer, a product purchased  
15 by the customer from the retailer. The method also includes inspecting the product. The method also includes communicating the condition of the product to the retailer. The method also includes receiving instructions from the retailer for proceeding with the disposition of the product. The method also includes proceeding with the disposition of the product according to the instructions. The method can also include notifying the retailer of the disposition of the received product. The method can also include purchasing title to the received product from the retailer. The method can also include sharing proceeds resulting  
20 from the disposition of the product with the retailer.

One embodiment of the invention is a method including receiving a request from a customer of a retailer to return a product purchased from the retailer. The method also includes requesting that the customer provide the condition of the product. The method also includes receiving the condition of the product provided by the customer. The method also includes selecting a location to which to have the customer ship the product based at least upon a likely condition of the product. The  
25 method also includes instructing the customer to send the product to the selected location. The likely condition of the product can be the provided condition. The method can also include determining the likely condition of the product. The likely condition of the product can be determined based upon at least the provided condition of the product. The location can be selected further based at least upon information gathered through inspection of products previously returned by the customer. The location can be selected further based at least upon product conditions provided by the customer in connection with  
30 previously returned products. The location can be selected further based upon at least a score representative of the likely accuracy of the product condition provided by the customer. The location can be selected further based upon a return frequency score. The method can also include receiving the product at the selected location and inspecting the received product. The method can also include determining, based at least upon the inspection, that the product is at a proper location for disposition and proceeding with the disposition the product. The method can also include determining, based at least upon  
35 the inspection, that the product is not at a proper location for disposition, and sending the product to the proper location for disposition.

One embodiment of the invention is a method including selecting a location to which to have a customer of a retailer return a product purchased from the retailer, wherein the selection is based at least upon a likely condition of the product. The method also includes instructing the customer to send the product to the selected location. The method also includes  
40 receiving notice that the product has been received at the selected location by a receiving entity. The method also includes

receiving an observed product condition from the receiving entity. The method can also include selecting a second location to which to have the receiving entity send the product based at least upon the observed product condition and instructing the receiving entity to send the product to the second location. The method can also include receiving the product at the second location and inspecting the received product. The method can also include determining, based at least upon the inspection,

5 that the product is at a proper location for disposition and proceeding with the disposition of the product. The method can also include determining, based at least upon the inspection, that the product is not at a proper location for disposition and sending the product to the proper location for disposition.

One embodiment of the invention is a method including receiving, from a retailer, an indication of the condition of a product being returned by a customer. The method also includes selecting a location to which to have the retailer ship the product based at least upon a likely condition of the product. The method also includes instructing the retailer to send the product to the selected location. The likely condition of the product can be based upon at least the indication of the condition of the product. The method can also include receiving the product at the selected location and inspecting the received product. The method can also include determining, based at least upon the inspection, that the product is at a proper location for disposition and proceeding with the disposition of the product. The method can also include determining, based at least upon the inspection, that the product is not at a proper location for disposition and sending the product to the proper location for disposition. The indication can include product condition information provided by the customer. The indication can include product condition information observed by the retailer.

One embodiment of the invention is a method including selecting a location to which to have a retailer send a product returned by a customer of the retailer, wherein the selection is based at least upon a likely condition of the product.

20 The method also includes instructing the retailer to send the product to the selected location. The method also includes receiving notice that the product has been received at the selected location by a receiving entity. The method also includes receiving an observed product condition from the receiving entity. The method also includes selecting a second location to which to have the receiving entity send the product based at least upon the observed product condition. The method also includes instructing the receiving entity to send the product to the second location. The method can also include receiving the product at the second location and inspecting the received product. The method can also include determining, based at least upon the inspection, that the product is at a proper location for disposition and proceeding with the disposition of the product.

25 The method can also include determining, based at least upon the inspection, that the product is not at a proper location for disposition and sending the product to the proper location for disposition.

30 One embodiment of the invention is a method including associating with a customer product condition information provided by the customer for a first product purchased from a retailer. The method also includes associating with the customer observed product condition information for the first product based upon the observed condition of the first product as observed after the customer has returned the first product. The method also includes receiving product condition information provided by the customer for a second product. The method also includes determining the likely condition of the second product based at

35 least upon the product condition information provided by the customer for the first product, the observed product condition information for the first product, and the product condition information provided by the customer for the second product. The method can also include receiving the first product from the customer and inspecting the first product. The method can also include selecting a location to which to have the customer ship the second product based at least upon the likely condition of the second product and instructing the customer to send the second product to the selected location.

One embodiment of the invention is a method of determining the accuracy of information provided by a customer. The method includes (A) receiving product condition information provided by a customer for a first product to be returned. The method also includes (B) subsequent to (A), receiving the first product from the customer. The method also includes (C) subsequent to (B), obtaining observed product condition information for the first product by at least inspecting the first product.

5 The method also includes (D) calculating a score based at least upon the provided product condition information and the observed product condition information. The method can also include using the score as an indication of the accuracy of information provided by the customer. The method can also include receiving product condition information provided by the customer for a second product to be returned and determining the likely condition of the second product based at least upon the score and the product condition information provided by the customer for the second product.

10 One embodiment of the invention is a method of determining the accuracy of information provided by a customer. The method includes (A) receiving product condition information provided by a customer for a first product to be returned. The method also includes (B) subsequent to (A), obtaining observed product condition information based at least upon an inspection of the first product by a party other than the customer. The method also includes (C) calculating a score based at least upon the received product condition information and the observed product condition information. The method can also 15 include using the score as an indication of the accuracy of information provided by the customer. The method can also include receiving product condition information provided by the customer for a second product to be returned and determining the likely condition of the second product based at least upon the score and the product condition information provided by the customer for the second product.

One embodiment of the invention is a returns processing center. The returns processing center includes a receiving 20 station for receiving returned products. The returns processing center also includes a visual inspection station configured for human visual examination of returned products. The returns processing center also includes an inspection device configured to generate images of returned products while the returns products are contained within packaging. The inspection device can be an X-ray machine. The returns processing center can also include a shipping dock. The returns processing center can also include a storage facility. The returns processing center can also include a packaging station.

25 One embodiment of the invention is a method for handling the return of a product purchased from a retailer by a customer. The method includes (A) determining that the product will be received from the customer. The method also includes (B) listing the product for sale in a web-based auction. The method also includes (C) subsequent to (A), receiving the product from the customer. The method also includes (D) subsequent to (C), inspecting the product. The method also includes (E) subsequent to (D), shipping the product to the winning bidder of the web-based auction. In the method, (A) can 30 include instructing the customer to ship the product. The method can also include receiving a request from the customer to return the product. In the method, (D) can include imaging the product using an imaging device. The imaging device can be capable of imaging an object through packaging material. The imaging device can be an X-ray imaging device. The method can also include storing an image of the product. In the method, (B) can be performed before (C). The method can also include determining whether the product as inspected has been properly described in the auction listing. The method can also 35 include determining whether the product as inspected is in satisfactory condition to be shipped to the winning auction bidder. The method can also include (F) prior to (B), determining that the product is to be disposed of through auction. In the method, (F) is performed after (D).

One embodiment of the invention is a method including receiving a request from a customer of a retailer to return a product purchased from the retailer. The method includes requesting that the customer provide the condition of the product.

40 The method also includes receiving the condition of the product provided by the customer. The method also includes creating

a description of the product based at least upon the condition provided by the customer. The method also includes listing the product, in conjunction with the description, for sale in an on-line auction. The method can also include receiving the product from the customer, inspecting the product, and shipping the product to the winning bidder of the web-based auction. Inspecting the product can include imaging the product using an imaging device. The imaging device can be capable of

5 imaging an object through packaging material. The imaging device can be an X-ray imaging device. The method can also include storing an image of the product. The product can be listed for sale before it is received from the customer. The method can also include determining whether the product as inspected has been properly described in the auction listing. The method can also include determining whether the product as inspected is in satisfactory condition to be shipped to the winning auction bidder. The method can also include, prior to listing the product, determining that the disposition of the product is to be

10 performed through an auction.

One embodiment of the invention is a method including listing a single item for sale on a first on-line auction. The method includes listing the same item for sale on a second on-line auction before the close of the first auction. The method also includes monitoring the bids at the first auction and the second auction. The method also includes delisting the product from one of the auctions before either of the auctions closes. The method can also include receiving a request from a

15 customer of a retailer to return a product purchased from the retailer, wherein the product is the item. The method can also include requesting that the customer provide the condition of the product, receiving the condition of the product provided by the customer, creating a description of the product based at least upon the condition provided by the customer and incorporating the description into the listing of the item in the first and second auctions.

These and other embodiments of the invention are described in additional detail below in the Detailed Description of

20 the Embodiments, which contains the following Sections:

- I. PRIOR ART TECHNIQUES
  - A. Prior Art Product Return Paths
  - B. Prior Art Product Return Process
- II. PRODUCT RETURN PATHS
- 25 III. RETURNS PROCESSING CENTER AND SYSTEM
  - A. Returns Processing Center
  - B. Returns Processing System
- IV. RETURNS PROCESSING METHODS
  - A. Return of Products by Transfer from Customer to Third Party
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  - C. Dynamic Determination of Return Shipping Destination
  - D. Determination of a Return Accuracy Score
  - E. Dynamic Auctioning of Returned Products
  - F. Interactive Product Return Arrangement
- 35 V. CONCLUSION

#### Brief Description of the Drawings

The present invention will be described below in connection with the attached drawings in which:

Figure 1 illustrates typical prior art product return paths for a remote purchase and delivery retailer;

40 Figure 2 illustrates a typical prior art returns method for a remote purchase and delivery retailer;

Figure 3A illustrates product return paths for a remote purchase and delivery retailer according to one embodiment of the invention;

Figure 3B illustrates product return paths for a remote purchase and delivery retailer according to a preferred embodiment of the invention;

5 Figure 4 illustrates a preferred embodiment of a returns processing center;

Figure 5A illustrates a preferred embodiment of a returns processing system;

Figure 5B illustrates an alternative embodiment of the returns processing system in which part of the returns processing functionality is handled by an order processing server operated by the retailer;

Figures 6A and 6B illustrate methods for transferring a product to be returned from a customer directly to a third

10 party;

Figure 7A illustrates a preferred method in accordance with which the returns processing system handles returns;

Figure 7B illustrates an alternative method in accordance with which the returns processing system handles returns;

Figure 8A illustrates a method by which the returns processing system dynamically determines a destination or disposition location to which to have a customer send a product to be returned;

15 Figure 8B illustrates an alternative method for determining a destination or disposition location that is applicable to purchases being returned to traditional bricks and mortar retailers;

Figure 9 illustrates a preferred method for creating a return history and for determining a return accuracy score for a customer;

20 Figure 10A illustrates a preferred method by which the returns processing system dynamically proceeds with the disposition of returned products through auction;

Figure 10B illustrates a preferred method for listing a product on multiple auction sites; and

Figure 11 illustrates a preferred method by which the returns processing system interactively arranges the return of a product by a customer.

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#### Detailed Description of the Embodiments

In the following description, reference is made to the accompanying drawings, which form a part hereof, and which show, by way of illustration, specific embodiments or processes in which the invention may be practiced. Where possible, the same reference numbers are used throughout the drawings to refer to the same or like components. In some instances, numerous specific details are set forth in order to provide a thorough understanding of the present invention. The present 30 invention, however, may be practiced without the specific details or with certain alternative equivalent components and methods to those described herein. In other instances, well known methods and components have not been described in detail so as not to unnecessarily obscure aspects of the present invention.

##### I. PRIOR ART TECHNIQUES

###### A. Prior Art Product Return Paths

35 Figure 1 illustrates typical prior art product return paths for a remote purchase and delivery retailer 100. Each directed line represents the transfer of a product between entities involved in the returns process. A customer 110 typically sends a product to be returned back to the retailer 100 from which the product was purchased. The dashed directed line represents the sending of the product by the consumer 110 to the retailer 100. Upon receipt of the product, the retailer 100 typically inspects the product to determine what to do with it, or in other words, to determine the product's final disposition or 40 how to proceed with the disposition of the product. If the product is in new condition and is capable of being resold as new, the

retailer 100 typically will restock the product for sale as a new product. In this case, the product remains with the retailer 100. If the product is defective, the retailer 100 will typically send the product back to the manufacturer 120 or the vendor 122 for credit. The vendor 122 may be a distributor or a manufacturer from which the retailer originally obtained the product. If the product is not in new condition and not defective, but still in working order, the retailer 100 will typically ship the product to a liquidator 130 or hold the product for pickup by the liquidator 130. A liquidator 130 is typically an entity that purchases returned, overstocked, or unsellable products in bulk for sale in secondary markets at a discount. If a product is not marketable in a secondary market or if the product is broken beyond repair, the retailer 100 will typically ship the product to a trash or recycling service 140 or allow a trash or recycling service 140 to pick up an accumulation of such products. If a product is not in returnable condition (e.g. abused or misused by the customer), the retailer 100 may choose to send the product back to the customer 110. The solid directed lines represent the transfer of the product from the retailer 100 to its location of final disposition.

#### B. Prior Art Product Return Process

Figure 2 illustrates a typical prior art returns method 200 typically performed by a remote purchase and delivery retailer 100. At a step 202, the retailer receives a request from a customer 110 to return a purchased product. Depending upon the whether the retailer is a catalog or a web based retailer, the request may be received through a customer service representative over the phone, or electronically through a web page or an e-mail message.

At a step 204, the retailer typically collects information from the customer regarding the return. The retailer may ask for an order number of the original product purchase. Alternatively, the retailer may ask for the name of the customer and when the product was purchased. The retailer may ask the customer why he is returning the product. In doing this, the retailer may ask whether the product is defective, whether the customer was not satisfied with the product, or whether the customer changed his mind after making the purchase. The retailer may also ask what action the customer desires be taken to credit the customer for the return. The customer may be given the option of having a replacement product delivered, being refunded part or all of the purchase price, or being issued a store credit.

At a step 206, the retailer may make a decision whether or not to authorize the return. For example, the retailer may have a time limit within which products may be returned. If the time limit has expired, the retailer may refuse to authorize the return. As another example, the retailer may have a return policy that only allows returns of defective products. If the consumer does not allege that the product is defective, the retailer may refuse to authorize the return. If the retailer decides not to authorize the return, the method 200 terminates. If the retailer decides to authorize the return, control passes to the step 208.

At the step 208, the retailer typically instructs the customer to ship the product back to the retailer. The retailer will typically provide a return authorization number to the consumer that allows both the consumer and the retailer to track the return of the product. The customer is typically given an address to which to ship the product to be returned. The customer is also typically instructed to include the return authorization number with the returned package. The customer will typically use a shipper such as the postal service or UPS to send the package back to the retailer.

At a next step 210, the retailer receives the product from the customer, typically via the shipper. At a step 212, the retailer inspects the returned product. Based upon the inspection, the retailer typically performs the following steps.

At a step 214, the retailer credits the customer for the return of the product. The credit may be in the form of a partial or total refund of the purchase price of the product. The credit may alternatively be in the form of a store credit towards future purchases. The credit may alternatively be a replacement product, in the case the original product is defective.

At a step 216, the retailer determines how to proceed with the disposition of the product (dispose of the product by restocking, repairing, trashing, etc.). The determination may be made based upon the inspection and possibly other factors discussed above with reference to Figure 1. At a step 218, if the product is capable of being restocked as new, control passes to a step 220, otherwise, control passes to a step 222.

5 At the step 220, the retailer restocks the product. Since the product is already in the possession of the retailer, the retailer simply puts the product back on the shelf for subsequent sale. Additional transportation is typically not necessary.

At the step 222, the retailer sends the product to the correct location for its final disposition. Alternatively, the retailer may aggregate for pickup products that need to be transported to another location. In the case a product is defective, the retailer may send the product back to the manufacturer 120 or the vendor 122. If the product is not defective, but capable of 10 being sold in a secondary market, the retailer may hold the product for pickup by a liquidator 130. If the product is not capable of being resold, the retailer may hold the product for pickup by a trash collector or a recycler 140.

At a step 224, the product is received at the location of final disposition and at a step 226 a final disposition entity proceeds with the disposition of the product.

## II. PRODUCT RETURN PATHS

15 Figure 3A illustrates product return paths for a remote purchase and delivery retailer 100 according to one embodiment of the invention. A customer 110 sends a product to be returned to a returns processor 300, instead of sending the product back to the retailer 100 from which the product was purchased. The returns processor 300 receives, inspects, and determines how to proceed with the disposition of products. The returns processor 300 then sends the product to the locations of their final disposition or aggregates the products for pickup by final disposition entities. The solid directed lines indicate the 20 path of a product from the returns processing entity 300 to its final disposition location.

The returns processor 300 is preferably an independent returns processing business entity dedicated to the processing of returned products. The returns processor 300 preferably handles returns for several retail establishments. By having a separate entity 300 handle returns, several smaller retailers can take advantage of the economies of scale of the larger capacity of a single entity. The returns processor 300 may also have other ancillary or even unrelated business 25 objectives. In the alternative, the returns processor 300 may be operated under the control of a single retailer for which the processor 300 handles returns. A larger retailer may have the capacity that may make it worthwhile to operate its own returns processor 300 rather than outsourcing the handling of returns to a separate entity.

The returns processor 300 preferably determines how to proceed with the disposition of a returned product based upon the condition of the product. If a product is in new condition and is capable of being resold as new, the product is 30 preferably sent back to the retailer 100 for restocking. If a product is not in returnable condition, the product may be sent back to the customer 110. A product may not be in returnable condition, for example, if the product has been abused or if the received package does not contain the product to be returned. If the product is defective, the product is preferably sent back to the manufacturer 120 or the vendor 122 for credit. Alternatively, the returns processor 300 may choose to repair the product and then proceed with the disposition of the repaired product.

35 As another alternative, the returns processor 300 may choose to auction the product through a web-based auction. The product to be auctioned may be new, may be used but in working order, may have been repaired, or may even be damaged but repairable. The product is preferably sold though the web based auction to a winning auction bidder 310. The product may be listed at auction at any existing web auction site. Alternatively, the returns processor 300 may operate a special web site for the auctioning of returned products.

As still another alternative, the returns processor 300 may choose to perform the disposition of a product through a discount or retail store. The discount or retail store may be a web-based store or a traditional bricks and mortar establishment. The store may be operated by the returns processor 300 or by a separate entity.

In other cases, the returned product may not be worth selling through an auction, possibly due to the low price of the

5 product or if the product is irreparably damaged. In these cases, the product is preferably aggregated with other similarly classified products and sent to a liquidator 130 or sent to a trash site or recycler 140.

Figure 3B illustrates product return paths for a remote purchase and delivery retailer 100 according to a preferred embodiment of the invention. Figure 3B includes all of the components and return paths illustrated in Figure 3A. Figure 3B, however, includes four additional product return paths, shown as dotted lines, from the customer 110 directly to each of the

10 original retailer 100, the manufacturer 120, the vendor 122, and the liquidator 130. By having the customer 110 send the product directly to these final disposition entities, the extra shipping and processing involved in first sending the product to the returns processor 300 can be avoided. The customer 110 is preferably instructed to send the product to the retailer 100, the manufacturer 120, the vendor 122, or the liquidator 130 based upon the likely condition of the product. The likely condition of the product is preferably determined based at least upon information obtained from the customer, as will be discussed below.

15 III. RETURNS PROCESSING CENTER AND SYSTEM

A. Returns Processing Center

Figure 4 illustrates a preferred embodiment of a returns processing center 400, which is preferably operated by the returns processor 300 to handle the return of products. The directed lines indicate the general flow of products through the various components of the returns processing center 400. The center 400 preferably includes a shipping and receiving dock

20 410 at which products are received from customers and at which products are held for pickup by shippers or final disposition entities such as liquidators or trash collectors. An inspection station 420 preferably includes a visual inspection station 422 as well as an X-ray machine 424. Some products may be inspected using the X-ray machine 424 in order to avoid unpackaging. Other products may require unpackaging and visual inspection. Visual inspection of a product may also include functional testing of the product. Some determinations of final product disposition may be performed completely at the discretion of

25 workers. Other determinations may be performed with the assistance of computer systems. At a packaging and labeling station 430, products are repackaged, if necessary, and labeled for shipping to their final destinations. A storage facility 440 provides storage for products that cannot be processed immediately. Products awaiting pickup may also be stored in the storage facility 440. The storage facility 440 can also be used to store products when any of the other components falls behind in processing products.

30 B. Returns Processing System

Figure 5A illustrates a preferred embodiment of a returns processing system 500. The system 500 is preferably operated by the returns processing business entity 300.

The returns processing system 500 preferably includes at least one customer service representative 502, a returns web server 510, a returns processing server 520, and the returns processing center 400. The system 500 preferably communicates with at least one of each of the following: a customer 110, a retailer 100, a manufacturer 120, a vendor 122, a liquidator 130, and an auction web server 580. Although only one of each is illustrated for clarity, there may be several customers 110, retailers 100, manufacturers 120, vendors 122, liquidators 130, and auction web servers 580. One or more auction customers 590 preferably communicate with the auction web server 580. Solid directed lines indicate communication channels between the various components of the returns processing system 500, as well as between the components of the

system 500 and the other entities. The communication channels are preferably computer networks, but may be telephone lines, the postal service, or any other medium over which the components and entities can communicate.

The returns processing server 520 preferably serves as the back end decision making component of the returns processing system 500. The returns processing server 520 preferably includes a customer information database 522 as well 5 as returns processing code modules 524.

The customer information database 522 preferably stores information about customers with whom the system 500 interacts. The stored information preferably includes a history of each customer's returns. The history, which may reflect a customer's experiences with several retailers, preferably includes information supplied by the customer in conjunction with returns, the conditions of the returned products upon receipt, any fraudulent activity on the part of the customer, and possibly a 10 credit history or report. The customer information can be created by collecting information from a customer's past experiences with the return processing system or by obtaining the information from other sources.

The returns processing code modules 524 preferably make decisions such as whether to authorize a return, where to have a return sent, and how to proceed with the disposition of a product upon receipt at the returns processing center 400. The decisions are preferably communicated to other components or entities as necessary. The returns processing code 15 modules 524 may also be configured to receive information from the customer and other sources, such as the returns processing center 400. The code modules 524 may store received data in the database 522 and use the information to make decisions. The returns processing code modules 524 preferably reference information in the customer information database 522 and in a retailer's order database 542 in order to make some decisions. The retailer's order database 542 preferably stores order and purchase information, such as order numbers, customer information, payment methods, dates, and items 20 purchased. In one embodiment, the returns processing server 520 is given the ability to modify the retailer's order database 542 to reflect the return of products. Alternatively, the returns processing server 520 can be configured to communicate returns information to the retailer 100 so that the retailer 100 can update its own database 542.

The code modules 524 are preferably configured to implement disposition rules 525 specified by each retailer 100 for handling returns. The disposition rules 525 preferably identify how to proceed with the disposition of a product under 25 various conditions. In one embodiment, the disposition rules 525 are integrated with the code modules 524 in which the code modules 524 are written to implement the disposition rules 525. In another embodiment, the code modules 524 may be configured to implement separate disposition rules 525. In this case the code modules 524 may be generically configured to handle the specific disposition rules 525 supplied by each retailer. The disposition rules for each retailer may specify, for 30 example, under what conditions a return may be authorized or under what conditions a product should be returned to the retailer for restocking.

The returns web server 510 and the customer service representative 502 preferably provide interfaces through which a customer 110 interacts with the system 500. The web server 510 provides a web site and associated web pages 512 through which a customer can initiate a return, provide requested information, and track a return. In the preferred embodiment, the web server 510 is integrated with the returns processing server 520, possibly on the same computer system. 35 In an alternative embodiment, the web server 510 may be separate from the returns processing server 520. In one embodiment, each retailer 100 has a separate and dedicated web site or set of web pages 512 on the returns web server 510 for handling returns. In another embodiment, the returns of several retailers are handled through a single web site 512 on the returns web server 510.

As an alternative to the web site 512, the customer 110 can call a customer service representative 502 on the 40 telephone to initiate the return process. The customer 110 and the customer service representative 502 can also effect the

return via other forms of communication such as e-mail or the postal service. The customer service representative 502, in turn, interacts with the returns processing server 520 as necessary to process the return. The customer service representative 502 may also be given the power to override or manipulate decisions and actions that would otherwise be automatically performed by the returns processing server 520.

5 In the case that a determination is made to sell a returned product at auction, the product is preferably listed for sale on the auction web server 580. The auction web server 580 may be a server operated by a separate entity such as any of the many companies that provide web based auction services. Alternatively, the auction web server 580 may be operated by the same entity that operates the returns processing system 500. In this case, the auction web server 580 may be implemented separately, as illustrated or it may be included in the returns processing system 500. The auction web server 580 may also be  
10 integrated with the returns web server 510. Auction customers 590, in turn communicate with the auction web server 580 to bid on products that have been returned and listed for sale on the server 580.

The communication channels between the returns processing server 520 and each of the retailer 100, the manufacturer 120, the vendor 122, and the liquidator 130 allow the returns processing server 520 to exchange information with each of these final disposition entities. The returns processing server 520 may provide at least the following types of  
15 information to the final disposition entities: notice that a product is being shipped from the returns processing center 400 to the entity, notice that a product is being shipped from a customer 110 to the entity, notice that an entity should pick up products at the processing center 400, and instructions to ship a product to another entity or to the returns processing center 400 in the case the product is not at the proper location for final disposition. The returns processing server 520 may receive the following types of information from the final disposition entities: notice of receipt of a product, the condition of the received product, and  
20 notice that a product is being shipped by the entity. In addition, other types of information may be exchanged as necessary.

The communications between the returns processing server 520 and the final disposition entities may be effected through any practical medium. For example, each of the disposition entities may have a computer system that communicates with the returns processing server 520 through a computer network such as the Internet. Employees at the final disposition entities may additionally or alternatively communicate with the returns processing server 520 through an additional web site  
25 (not illustrated).

Figure 5B illustrates an alternative embodiment of the returns processing system 501 in which part of the returns processing functionality is handled by an order processing server 540 operated by the retailer 100. The order processing server 540 preferably serves as the back end server through which the retailer 100 processes returns as well as product orders. The order processing server 540 preferably includes the order database 542 as well as any returns processing  
30 modules 544 necessary to support the initiation of the return. The returns processing modules 544 can make decisions such as whether to authorize the return and where to have the customer ship the return. The customer 110 preferably interacts with the retailer 100 for both orders and returns through a web site 532 that is supported by a retailer web server 530. The retailer web server 530 may be integrated with the order processing server 540 on a single computer or it may be implemented separately. A retailer customer service representative 504 preferably handles orders and returns over the phone, for example,  
35 for customers 110 that cannot or do not wish to use the web server 530.

The order processing server 540 preferably communicates with the returns processing server 520 to access the customer information database 522. The information contained in the customer information database 522 preferably enables the order processing server 540 to make informed decisions regarding, for example, whether to authorize a return or where to have a customer 110 send a return. The order processing server 540 preferably also provides customer return information to  
40 be entered into the customer information database 522. Decisions that need to be made after receiving a returned product are

preferably handled by returns processing code modules 526 of the returns processing server 520. These decisions may include, for example, what to do with a product after the product is inspected at the returns processing center 400. The disposition rules 525, in this case, are preferably incorporated into both the returns processing server 520 and the order processing server 540.

5 IV. RETURNS PROCESSING METHODS

A. Return of Products by Transfer from Customer to Third Party

Figure 6A illustrates a preferred method 600 in accordance with which the returns processor 300 effects the transfer of a product from a customer 110 to a third party. The returns processor 300 performs the method 600 to effect the return paths illustrated in Figure 3B from the customer 110 to the retailer 100, the manufacturer 120, the vendor 122, and the liquidator 10 130.

At a step 602, the returns processor 300 enters into an agreement with the retailer to handle the retailer's product returns. The returns processor preferably agrees to receive products returned by the retailer's customers and to proceed with the disposition of the products. The returns processor preferably also agrees to handle the interactions with customers wishing to return products. The returns processor preferably handles the interactions through the returns processing system 15 500. The retailer 100, in return, preferably agrees to allow the returns processor to retain a portion of the proceeds resulting from the disposition of the returned products. In an alternative embodiment, the retailer, rather than the returns processor handles the interactions with customers in conjunction with the embodiment of the returns processing system 501 illustrated in Figure 5B.

At a step 604, the returns processor receives a request from a customer 110 to return a product purchased from the 20 retailer and shipped to the customer by the retailer. The returns processor preferably determines whether to authorize the return, possibly by referencing the retailer's return policy. At a step 606, if the return is authorized, the returns processor provides the customer with a return authorization number. The authorization number is preferably used by the returns processor, the customer, and the third party to track the return of the product. The tracking of the return may include providing information regarding the receipt of the product as well as whether and when the customer has been credited for the return of 25 the product. The returns processor preferably also provides the customer with the address of a web page or a phone number through which the return of the product can be tracked using the return authorization number.

At a step 608, the returns processor instructs the customer 110 to ship the product to a third party. The third party is preferably the retailer 100, the manufacturer 120, the vendor 122, or the liquidator 130. In the case the returns processor instructs the customer to ship the product to the manufacturer or the vendor, the returns processor may first need to obtain a 30 return materials authorization (RMA) number from the manufacturer or a return to vendor (RTV) number to authorize the return. If this is the case, prior to the step 608, the returns processor preferably requests an RMA/RTV number from the manufacturer or vendor for the product to be returned. The returns processor then provides the RMA/RTV number to the customer in conjunction with the instructions to ship the product to the manufacturer or the vendor. The returns processor preferably also instructs the customer to supply the RMA/RTV number either on or within the package containing the product 35 to be returned.

At a step 610, the returns processor receives notice from the third party that the product has been received by the third party. The notice is preferably communicated through the communications channels illustrated in Figure 5A. The third party preferably also includes, with the notice, an indication of whether the product was received in satisfactory condition.

Steps 612, 614, and 616 are preferably performed in the case the third party is the manufacturer 120, a vendor 122, 40 or a liquidator 130. At the step 612, the returns processor informs the original retailer 100 that the customer has returned the

product. The retailer may also be notified whether the product has been received in satisfactory condition. Based upon this information, the retailer can determine whether and how to properly credit the customer for the return of the product.

At the step 614, the returns processor preferably receives credit or compensation from the third party in exchange for the returned product. The third party may then refurbish, remanufacture, and resell the product. At the step 616, the 5 returns processor, in turn, preferably provides a portion of the credit or compensation received from the third party to the original retailer 100. The returns processor preferably retains a portion of the compensation obtained from the third party in exchange for its services. The compensation to the returns processor and then to the retailer may be in the form of a payment or credit for the individual product or it may be in the form of a lump sum payment or credit on a periodic basis for several products.

10 Figure 6B illustrates an alternative method 650 in accordance with which the retailer 100 effects the transfer a product from a customer to a third party.

At a step 652, the retailer 100 sells a product to a customer, preferably through a web site. At a step 654, the retailer ships the product to the customer. At a step 656, the retailer 100 receives a request from the customer to return the product.

15 At a step 658, the retailer instructs the customer to ship the product to a third party. The third party is preferably the returns processor, the manufacturer 120, the vendor 122, or the liquidator 130. In the case the retailer instructs the customer to ship the product to the manufacturer 120 or the vendor 122, the retailer may first need to obtain an RMA or an RTV number from the manufacturer or vendor to authorize the return. If this is the case, prior to the step 658, the retailer preferably requests an RMA/RTV number from the manufacturer or the vendor for the product to be returned. The retailer then provides the RMA/RTV number to the customer in conjunction with the instructions to ship the product to the manufacturer or to the 20 vendor. The retailer preferably also instructs the customer to supply the RMA/RTV number either on or within the package containing the product to be returned.

At a step 660, the retailer receives notice from the third party that the product has been received by the third party. The notice is preferably communicated through the communications channels illustrated in Figure 5B. The third party preferably also includes, with the notice, an indication of whether the product was received in satisfactory condition.

25 At a step 662, the retailer can directly effect the credit to the customer for the return of the product. At the step 664, in the case the third party does not return the product to the retailer, the retailer preferably receives credit or compensation from the third party in exchange for the product.

#### B. Handling of Returns

Figure 7A illustrates one advantageous method 700 for handling returns. The method 700 is preferably performed 30 automatically by the returns processor 300, through the returns processing server 520, for each product received. The method 700 enables the returns processor to receive returns on behalf of one or more retailers 100 and to proceed with the disposition of the returned products in accordance with disposition rules preferably specified by the retailers. Proceeds from the disposal of the returned products are preferably shared between the returns processor and the retailer.

At a step 702, the returns processor preferably receives a set of disposition rules from a retailer for which the returns 35 processor is handling returns. The disposition rules preferably specify how to proceed with the disposition of returned products based upon the condition of the product. The returns processor preferably provides several options from which the retailer may choose in creating disposition rules. The options preferably include at least the following: sending a product back to the retailer 100 for restocking, sending a product back to the customer 110, selling a product at auction, sending a product to the manufacturer 120, and sending a product to the vendor 122. Some of the options may also be identified by the retailer. For

example, a retailer may supply the addresses and contact information for the manufacturers and vendors of the products to be handled by the returns processor.

5 The rules may be specific to each product that may potentially be returned, specific to categories of products, or even generally applicable to all products carried by the retailer. The steps 710 to 716, described below, are an example set of disposition rules that may be specified by a retailer. The example rules may be generally applied to all products and may leave a substantial amount of judgment and discretion to the returns processor. Retailers may, however, provide much more specific sets of rules, which leave less discretion to the returns processor. In an alternative embodiment, the returns processor may formulate the rules instead of obtaining them from the retailer.

At a step 704, the returns processor determines that a product to be returned will be received from a customer 110. 10 The customer may provide notice of the return directly through the returns web server 510 of Figure 5A. Alternatively, the returns processor may receive the notice from the retailer 100 through the order processing server 540 of Figure 5B.

At a step 706, the returns processor receives the product from the customer. The product is preferably received at the returns processing center 400. At a step 708, the returns processor inspects the returned product in order to determine how to proceed with the disposition of the product.

15 The step 702 need not necessarily be performed before the step 704. In alternative embodiments the step 702 may be performed and the disposition rules received after the steps 704, 706, or 708.

At the step 710, the returns processor determines whether the product is capable of being restocked as new. If so, the returns processor sends the product to the retailer 100 for restocking. More specific aspects of the disposition rules preferably specify how this determination is made. For example, if a sealed box has been opened, a rule may require that the 20 product is not capable of being restocked. In other cases, a rule may specify that as long as a product is in working order, regardless of whether a box has been opened, it may be restocked.

At a step 712, the returns processor determines whether the product is defective. If so, the returns processor preferably sends the product to the product manufacturer or the vendor. Alternatively, the returns processor may choose to repair the product or have the product repaired. The returns processor can then proceed with the disposition of the repaired 25 product. The determination of whether the product is defective preferably includes a confirmation, at the inspection step 708, of a customer's allegation that a product is defective.

At a step 714, the returns processor determines whether the product is to be sold at auction. If so, the returns processor sells the product at auction. The determination of whether to auction a product may be based upon the estimated 30 value of the product at auction, the cost of auctioning the product, and the liquidation value of the product. Products with higher values may be more worthwhile auctioning. The value of a product may be estimated based upon its original selling price and condition.

At a step 716, if a product will not be restocked, returned to the manufacturer 120, or sold at auction, the product is preferably sold to a liquidator 130 or trashed. If the product has any liquidation value, it is preferably sold to a liquidator, otherwise it is trashed.

35 At a step 718, the returns processor preferably notifies the original retailer 100 that the product has been received by the customer 110. The retailer can then credit the customer for the return of the product. At a step 720, if the product is sold at auction or sold to a liquidator, the returns processor preferably shares the proceeds of the sale with the original retailer. Furthermore, the proceeds from any disposition of a returned product may be shared with the retailer. In an alternative 40 embodiment, the returns processor may purchase title to the product from the retailer and then keep all of the proceeds from the disposition of the product.

Figure 7B illustrates an alternative method 740 in accordance with which the returns processor 300 handles returns. As illustrated, the method 740 preferably includes the same steps 704, 706, and 708 of the method 700.

At a step 742, the returns processor notifies the retailer 100 of the receipt of the product and of the condition of the product as inspected. The retailer, instead of the returns processor, then preferably determines how to proceed with the disposition of the product. In order to determine how to proceed with the disposition of the product, the retailer may execute a set of disposition rules, such as the steps 710 to 716 of the method 700, in order to create disposition instructions. The disposition instructions preferably specify how to proceed with the disposition of the particular product. At a step 744, the returns processor receives disposition instructions from the retailer. At a step 746, the returns processor proceeds with the disposition of the product in accordance with the disposition instructions. The steps 718 and 720 of the method 700 may also be optionally included in the method 740.

#### C. Dynamic Determination of Return Shipping Destination

Figure 8A illustrates a method 800 for determining a destination or disposition location to which to have a customer 110 send a product to be returned. The disposition location to which a customer is instructed to ship a return is preferably selected based upon the likely condition of the product. The customer is instructed to ship the product directly to the disposition location, in most cases, bypassing the returns processing center 400. The method 800 is preferably performed by the returns processor 300 through the returns processing system 500.

At a step 802, returns processor 300 receives a request from a customer 110 to return a purchased product. At a step 804, the returns processor requests product condition information from the customer. The requested product condition information preferably includes whether the product is defective, whether the product has been unpackaged, and whether the product has been used. The product condition is preferably requested in terms of a categorization of the product condition. Some categories of possible product conditions may be: brand new and still packaged; new, but box opened; defective; noticeably used; damaged; and unknown condition. Other types of product condition information may also be requested and may be based, for example, upon the product involved and any rules specified by the retailer 100. The customer may also be given an opportunity to describe the condition of the product in the customer's own words. If the customer alleges that the product is defective, the returns processor preferably asks the customer to describe the defect. At a step 806, the returns processor receives the product condition information provided by the customer (provided product condition information).

At a step 808, the returns processor determines the likely condition of the product. The likely product condition is preferably selected from one of the aforementioned categories. The determination is preferably based upon at least the provided product condition information. In one embodiment, the likely product condition is taken to be the product condition provided by the customer in the step 806.

The determination of likely product condition is preferably also based upon a return accuracy score. A return accuracy score preferably represents the likely accuracy of provided product condition information. For example, if a customer has a low return accuracy score, the product to be returned by the customer may be assigned a condition of "unknown." If a customer has a high return accuracy score, the provided product condition can be used as the likely product condition. The return accuracy score for a particular customer is preferably based at least upon a history of provided and observed product condition information. A preferred method for determining a return accuracy score is described below with reference to Figure 9. The determination of the likely condition of the product may also be based upon additional factors that may be specified by the retailer or by the returns processor.

The determination of likely product condition may also be based upon historical records associated with the particular customer. The determination, for example may also be based upon accumulated information about the customer's

previous returns. The determination may alternatively or additionally be based upon one or more additional factors, such as, for example, the customer's zip code, the identity of the product, the customer's purchase history, the time of day or day of the week of the return, the time between the purchase of the product and its return, the customer's credit record, and the age of the customer.

5 The determination may additionally be based upon product condition information provided in association with previous returns of the customer and observed product information associated with those returns. The observed product condition information is preferably based upon inspection of products upon receipt from the customer.

10 In the preferred embodiment, the determination of the likely product condition is made based upon deterministic (rules based) techniques. In an alternative embodiment, stochastic (statistical) techniques may be employed in making the determination of likely product condition. Deterministic and stochastic techniques may also be combined in making the determination.

15 At a step 810, the returns processor makes an initial determination of how to proceed with the disposition of the product based at least upon the likely product condition. In the preferred embodiment, this initial determination is made based upon a set of disposition rules supplied by the retailer, such as the disposition rules discussed in the process 700. In one embodiment, the same set of disposition rules may be used for both the initial determination as for a final determination (discussed in the process 700 and in steps 820 and 824 below). Alternatively, different sets of rules can be used for the initial and final determinations. In the case of the initial determination, additional rules may be added to handle cases where the product condition is "unknown." For example, products with unknown conditions may be scheduled for further inspection by the returns processor.

20 In an alternative embodiment, at the step 810, the retailer 100 makes the initial determination of how to proceed with the disposition of the product based upon information supplied by the returns processor. The retailer then provides initial disposition instructions to the returns processor for the product being returned. The steps 742, 744, and 746 of the method 740, which illustrate this technique as applied to a final determination, may similarly be applied to make the initial determination of the step 810.

25 The initial determination of how to proceed with the disposition of a product may also take into account additional factors. Many of the factors identified as applicable to the determination of likely product condition in the step 808, such as a return accuracy score, may alternatively or additionally be incorporated into this determination. In one embodiment the determination of the likely product condition (step 808) and the determination of how to proceed with the disposition of the product (step 810) may be combined and performed together. In this case, the determination of the likely product condition 30 may be eliminated as an unnecessary intermediate step.

35 At a step 812, the returns processor selects a location to which to have the customer 110 ship the product based upon the initial determination of how to proceed with the disposition of the product. For example, if the product is to be sold at auction, the returns processing center 400 is preferably selected as the location to which to have the customer send the product. If it is determined that the product is to be restocked, the retailer 100 is selected as the location to which to have the customer send the product. If it is determined that the product requires further inspection, the returns processing center 400 is preferably selected so that the inspection can be performed. In one embodiment, if it is determined that the product is to be trashed without first being inspected, the returns processor may instruct the customer to discard or keep the product to save the cost of shipping a product that will be discarded in any case.

40 At a step 814, the returns processor instructs the customer to ship the product to the selected location. The possible disposition locations preferably include the returns processing center 400, the retailer 100, the manufacturer 120, the vendor

122, and the liquidator 130. The steps 802, 804, 806, and 814 are preferably performed through the web site 512 operated by the returns web server 510. These steps may, however, be performed through the customer service representative 502.

At a step 816, the returns processor receives notice that the product has been received at the selected location by an entity operating the selected location (the receiving entity). At a step 818, the receiving entity inspects the returned product 5 to determine the product condition (the observed product condition).

At a step 820, if the product is at the correct location for final disposition, control passes to a step 822. The determination of whether the product is at the correct location for final disposition is preferably left up to the receiving entity. For example, if the retailer 100 receives the product, the retailer determines whether the product is fit for restocking as new. If the manufacturer 120 receives the product, the manufacturer preferably verifies that the product is defective. The receiving 10 entity makes this determination preferably in accordance with its policies and the observed condition of the product. Alternatively, this determination may be based upon rules supplied by the retailer or may be made by the retailer based upon the observed product condition supplied by the entity that received the product. Alternatively, the receiving entity can provide the observed product condition to the returns processor and the returns processor can make the determination.

At the step 822, the disposition of the product is performed. For example, the retailer 100 may restock the product 15 as new, the liquidator 130 may sell the product in a secondary market, the manufacturer 120 may repair or refurbish the product, or the vendor 122 may return the product to the manufacturer. If the product is received at the returns processing center 400, the product is preferably auctioned, repaired, or sent to trash. In this case, the process 800 preferably terminates at the step 822.

At the step 820, if the product is not at the correct location for final disposition, control passes to a step 823. At the 20 step 823, the receiving entity sends and the returns processor receives the observed product condition for the product received by the receiving entity. The observed product condition is preferably a description of the condition of the product based upon the inspection of step 818.

At a step 824, it is determined how to finally perform the disposition of the product. In the preferred embodiment, the returns processor 300 makes this final determination based upon a set of disposition rules supplied by the retailer, such as the 25 disposition rules discussed in the process 700. This determination is preferably similar or identical to the initial determination of the step 810 but instead based upon the observed product condition obtained from the entity that received the product. Once the returns processor makes the final determination, it instructs the receiving entity to send the product to the location of final disposition. In some cases, the receiving entity may be the returns processor itself, in which case the step 823 may be skipped.

30 In an alternative embodiment, the receiving entity provides the observed product condition to the retailer 100 at the step 823, and the retailer makes the determination of how to finally perform the disposition of the product. Alternatively, the receiving entity may be given the authority to determine how to finally perform the disposition of the product.

At a step 826, the returns processor (or the retailer) instructs the receiving entity to send the product to the correct location for final disposition. At a step 828, the product is received at the final disposition location. At a step 830, the 35 disposition of the product is finally performed.

In an alternative embodiment of the method 800, the retailer 100 performs the steps 802 to 814. In this case, the retailer 100 handles most or all of the interaction with the customer and makes most or all of the determinations. The configuration illustrated in Figure 5B is particularly applicable in this case.

Figure 8B illustrates an alternative method 850 for determining a destination or disposition location that is applicable 40 to purchases being returned to traditional bricks and mortar retailers. In the case of bricks and mortar retailers, customers will

generally return a product by bringing the product back to the place of purchase. The returns processor 300 and the retailer 100 preferably perform the steps of the method 850 in order to automate and facilitate the determination of how to proceed with the disposition of a returned product.

At a step 852, the retailer 100 receives a returned product from a customer 110. The customer will typically return 5 the product at a returns or customer service counter at the retailer's place of business. At a step 854, in conjunction with receiving the product, the retailer preferably obtains customer verification information from the customer. The verification information may include information from the purchase receipt and identification information (e.g. name, address, phone number, driver's license number). At a step 856, the retailer preferably collects initial product condition information. The initial product condition information preferably describes the condition of the product (e.g. new and unopened, opened and used, 10 defective, abused, etc.) as initially observed by the retailer. The retailer may collect the initial product condition information, for example, by inspecting the product, testing the product, and/or querying the customer about the product for provided product condition information.

At a step 858, the retailer sends and the returns processor receives an identification of the product, the initial product condition information, and the customer verification information. The retailer may distinguish between the product condition 15 information provided by the consumer and product condition information obtained through inspection and/or testing. The retailer may also send additional information, such as the identity of the employee handling the return.

At a step 860, the returns processor determines the likely condition of the product. The determination is preferably based upon the information collected from the customer (e.g. identification information, and alleged product condition) and/or the information supplied by the retailer (e.g. initial product condition information, identification of product, and identity of 20 employee handling the return). Many or all of the factors that are taken into account in the determination of the condition of the product in the step 808 of the method 800 may also be incorporated into the step 860. In one embodiment the returns processor also maintains an accuracy scores for the information supplied by the retailer or the even the employee of the retailer that entered the information or inspected the product. This retailer or employee accuracy score may be calculated in a manner similar to the customer's return accuracy score described above.

25 At a step 862, the returns processor makes an initial determination of how to proceed with the disposition of the product based at least upon the likely product condition. The determination is preferably similar to the determination 810 of the method 800, but may also take into account additional information. The additional information may be information supplied by the retailer, such as the results of the inspection of the product. Information collected by the retailer, such as the customer's driver's license number, may also be used to identify the customer and update any information about the customer in the 30 customer information database 522. In one embodiment, the likely condition of the product is taken to be the condition of the product as observed and communicated by the retailer. In this case, the step 860 of determining the likely product condition may be skipped.

At a step 864, the returns processor selects a location to which to have the retailer 100 ship the product based upon the initial determination of how to proceed with the disposition of the product. At a step 866, the returns processor instructs the 35 retailer to ship the product to the selected location. The possible disposition locations preferably include the returns processing center 400, the manufacturer 120, the vendor 122, and the liquidator 130. In the step 862, the returns processor may have initially determined that the product is to be restocked as new. In this case, the step 866 can be skipped and the product remains with the retailer. The steps 858 and 866 are preferably performed through the web site 512 operated by the returns web server 510. Alternatively, these steps may be performed through a retailer's dedicated computer system that is

connected to the returns processing server 520. From the step 866, the method 850 preferably continues at the step 816 of the method 800.

The method 850 advantageously automates the process of deciding how to proceed with the disposition of a product. The automation of this decision may allow the employee of a retailer 100 to more quickly and efficiently perform his 5 duties. Additionally, the store employee typically does not have the information that is potentially available to the returns processor in order to make an informed decision regarding how to proceed with the disposition of a product. This information may include the potential value of the product at auction. Automating the decision also allows for increased uniformity in how returns are processed. The proper addresses to which to send returned products are preferably automatically provided by the returns processor, reducing overhead time for the employee of the retailer.

10 D. Determination of a Return Accuracy Score

Figure 9 illustrates a preferred method 900 for creating a return history and for determining a return accuracy score for a customer 110. The history preferably includes an identification of each return performed by the customer as well as provided and observed product condition information for the returns. The return accuracy score preferably represents the likely accuracy of product condition information provided by the customer. In the preferred embodiment of the method 800, the 15 method 900 for calculating a return accuracy score is preferably first performed at least once to calculate a return accuracy score that is used in the step 808 or 810 of the method 800. The method 900 is preferably performed by the returns processor 300 through the returns processing system 500.

At a step 902, the returns processor receives product condition information from the customer 110 for a product to be returned. The step 902 may be similar or identical to the step 806 of the method 800. The product condition is preferably 20 requested in terms of a categorization. Some categories of possible product conditions may be: brand new and still packaged; new, but box opened; defective; noticeably used; damaged; and unknown condition. At a step 904, the returns processor associates the obtained product condition information with the customer. The returns processing server 520 preferably creates this association by creating or updating a record for the customer in the customer information database 522.

At a step 906, the product is received from the customer. The product may be received by any of the disposition 25 entities, such as the retailer 100, the manufacturer 120, the vendor 122, the liquidator 130, or the returns processing center 400, to which the customer may have been instructed to send the product to be returned. At a step 908, the receiving entity inspects the condition of the received product to generate observed product condition information. The observed product condition information is preferably specified in terms of the same categorization used by the customer to describe the product 30 condition. In the case that the returns processor does not perform the inspection, the receiving entity preferably forwards the observed product condition information to the returns processor.

At a step 910, the returns processor associates the observed product condition information with the customer. In the case that the product was received and inspected at the returns processing center 400, the observed product condition information is directly available to the returns processor. Alternatively, if one of the other disposition entities received and inspected the product, that other receiving entity preferably forwards the observed product condition information to the returns 35 processor. Once the observed product condition information is available, the returns processor preferably stores the information by updating the customer's record in the customer information database 522.

At a step 912, the returns processor calculates a return accuracy score for the customer 110. The score is preferably calculated based upon information in the customer's record in the customer information database 522. In the preferred embodiment, the return accuracy score for a customer is the percentage of previous returns for which the provided

product condition information matches the observed product condition information. Once the return accuracy score is calculated, the method 900 may continue at the step 802 of the method 800.

Scores that represent additional characteristics of a customer may also or alternatively be calculated. For example, a return frequency score may represent the likelihood that a customer will return a purchased product. This score may be the 5 historical percentage of products purchased by a customer that the customer eventually returns. The return frequency score may be used by retailers to identify customers to whom to make special offers in anticipation that purchased products likely will not be returned. The return frequency score may also or alternatively be used to make a determination of where to have a customer send a product to be returned. As another example, a consistency score may represent the logical consistency of information provided by a customer in conjunction with returns. The consistency score may be used to determine whether to 10 authorize a return or to determine the likely condition of a product to be returned. As another example, a general score may be a weighted combination of one or more of the above scores. Other scores may also be calculated depending upon the requirements of the retailer 100 and/or the returns processor.

The steps 902 to 910 are preferably repeated in conjunction with each return performed by the customer. Accordingly, a history of information about the customer is accumulated in the customer information database 522. As more 15 information about the customer's return history becomes available, there is more information upon which to base the return accuracy score. The calculation of a score in the step 912 may be performed subsequent to each return or prior to each return after the first.

In one alternative embodiment, the retailer 100 may obtain a customer's return history from the returns processing system 500 and calculate a score. In another alternative embodiment, the retailer 100 may log returns-related customer 20 information in its own database. In this embodiment, the retailer 100 may perform some or all of the method 900.

#### E. Dynamic Auctioning of Returned Products

Figure 10A illustrates a preferred method 1000 by which the returns processor 300 dynamically performs the disposition of returned products through auction. The method 1000 allows a product to be listed for sale before the product has even been received by the returns processing center 400. The returns processor preferably performs the method 1000 25 through the returns processing system 500. The method 1000 may, in the alternative, be performed by the retailer 100. In the preferred embodiment, the returns processor performs the method 1000 in conjunction with the method 800.

At a step 1002, the returns processor 300 receives a request from a customer 110 to return a purchased product. At a step 1004, the returns processor collects product condition information from the customer. The step 1004 is preferably embodied as the steps 804 and 806 of the method 800 in which the system 500 requests and receives product condition 30 information. The product condition information is preferably in the form of a categorized description of the condition of the product.

At a step 1006, the returns processor determines that the disposition of the product is to be performed through auction. The step 1006 is preferably performed in the process of performing the step 810 of the method 800. At the step 810, the returns processor performs an initial determination of how to proceed with the disposition of the product based upon the 35 likely product condition. The step 1006 is performed in the process of an initial determination that the disposition of the product is to be performed at auction.

At a step 1008, the returns processor creates a product description by which the product will be listed at auction. The product description preferably incorporates marketing and promotional information used in connection with the original 40 sale of the product. The product description may be in the form of a web page with images and hypertext links. The product description preferably also incorporates some or all of the product condition information provided by the customer at the step

1004. Incorporating such a description may, however, allow a customer to identify the exact product that he is returning in a resulting auction and the customer may then bid for the same product, possibly at a lower price. Accordingly, it may be disadvantageous to allow a customer supplied text description of the product to be incorporated into the description.

At a step 1010, the returns processor lists the product on an on-line auction, preferably in conjunction with the 5 product description. In the preferred embodiment, the on-line auction is conducted by the returns processor itself through the auction web server 580. In an alternative embodiment, another entity may run the auction and operate the auction web server 580. In still another embodiment, the product may be listed on multiple on-line auctions in accordance with a method 1050 described below and illustrated in Figure 10B.

At a step 1012, the returns processor instructs the customer to send the product to the returns processing center 10 400. The step 1012 may be performed after or before the steps 1008 and 1010.

At a step 1014, the auction closes. In the preferred embodiment, the auction is preferably set to close just before or at the expected arrival time of the product at the returns processing center 400. By having the auction close at this time, storage at the processing center 400 can be avoided and the product can be inspected and shipped directly to the winning bidder. The auction may, however, be set to close after the product is received at the returns processing center 400. If the 15 condition of the product is unknown, the listing of the product at auction in step 1010 may be delayed until after the product has been received at the returns processing center 400. In this case the product can be inspected before it is listed at auction.

At a step 1016, the product is received from the customer at the returns processing center 400. At a step 1018, the product is inspected either visually or using an X-ray machine to avoid unpackaging the product. Inspection with an X-ray machine may be used primarily to ensure that the original customer has indeed returned the product rather than just an empty 20 box. Visual inspection is preferably used, if necessary, to confirm that the condition of the product as listed on the auction description conforms to the actual product condition.

At a step 1020, if the product is in satisfactory condition or is indeed included in the package received from the original customer, control passes to a step 1022. At the step 1022, the returns processor ships the product to the winning bidder of the auction.

25 At the step 1020, if the product is not in satisfactory condition or if the original customer never returns the product, control passes to a step 1024. At the step 1024, the returns processor informs the winning bidder either of the inconsistency in the product condition or of the fact that the product was never received from the original customer. The terms of the auction preferably specify how this condition is handled. For example, if the product description is not accurate, the auction contract for sale may be cancelled at the option of the winning bidder. If the product is never returned by the original customer, the 30 auction contract may be cancelled at the option of the returns processor.

In an alternative embodiment of the method 1000, the retailer is a traditional bricks and mortar retailer and the customer returns the product directly to the retailer. In this case, the returns processor preferably performs the method 1000 in conjunction with the method 850. In the steps 1002, 1004, 1008, 1012, and 1016, the interactions with the customer are replaced by interactions with the retailer. In this embodiment, the retailer has the opportunity to inspect the product before 35 making a decision to auction the product. Accordingly, the step 1016 is preferably performed in conjunction with the step 1004, the step 1018 is performed after the step 1004, and the steps 1020 and 1024 may be skipped.

Figure 10B illustrates a method 1050 for listing a single product for sale through multiple auctions. The method 1050 is preferably used in one embodiment of the invention to implement the steps 1010 and 1014 of the method 1000.

At a step 1052, the product is listed, preferably simultaneously, on multiple web-based or on-line auction sites. One 40 or more of the auctions may be operated by the returns processor 300. For example, the product may be listed in a first

auction. The product is then listed in a second auction before the first auction closes and preferably at the same time as the listing on the first auction.

At a step 1054, the bid price and/or the bid activity is monitored at each of the auction sites. Online auction sites typically provide the current bid price for a product throughout an auction. Some online auction sites may also list data on the 5 number of bids that have been placed for a product. This information can be automatically gathered by the returns processing system 500. At a step 1056, before any of the auctions has closed, the product is delisted from all but one of the auctions. Delisting a product involves removing a product from an auction and canceling the auction before its close. At a step 1058, the remaining auction is allowed to close and the product is sold to the winning auction bidder of that auction.

In the preferred embodiment of the method 1050, the product is delisted from all but the auction having the highest 10 bidding price. Alternatively, the product may be delisted from all but the auction with the most activity or bids placed. The product may be delisted from one auction at a time, or delisted from multiple auctions at once. For example, a product may be simultaneously listed on four auctions each closing four days later. At the end of the third day, the product may be delisted from the three auctions with the lowest bid prices. The auction with the highest bid after three days is allowed to close and the auction product is sold to the winning bidder of that auction.

15 F. Interactive Product Return Arrangement

Figure 11 illustrates a preferred method 1100 for interactively arranging the return of a product by a customer 110. The returns processor 300 preferably performs the method 1100 through the returns processing system 500. The method 1000 may, in the alternative, be performed by the retailer 100. The returns processor preferably performs the method 1100 as one embodiment of the step 814 of the method 800.

20 At a step 1102, the returns processor presents the customer 110 the option of having the system handle the shipping arrangements and payment for the shipping. At a step 1104, if the customer chooses to decline the option, control passes to a step 1106. At the step 1106, the returns processor provides the customer with packing instructions and/or locations of the closest packaging and shipping locations. If, at the step 1104, the customer chooses to take the option presented in the step 1102, control passes to a step 1107.

25 At the step 1107, the returns processor preferably determines the least cost shipping options for shipping the return. The least cost shipping option or options can be determined by calculating the shipping fees of several shippers and selecting the lowest fees and shippers. The least cost shipping option may then be chosen by the system or presented to the customer.

At the step 1108, the returns processor asks the customer if the customer wants to have the package picked up by a 30 shipper. If so, control passes to a step 1110. At the step 1110, the returns processor arranges a pick up time, preferably by giving the customer a selection of available pick up times of a selected shipper. At the step 1112, the returns processor provides packing instructions and provides a shipping label preferably as an image on a web page. The customer is then preferably instructed to print out the shipping label and to affix it to the package. At a step 1114, the returns processor optionally charges the customer or the retailer 100 for the shipping charges.

At the step 1108, if the customer does not want to have the package picked up by a shipper, control passes to a step 35 1116. At the step 1116, the returns processor provides the locations of the closest packaging and shipping services. At a step 1118, the returns processor preferably provides a prepaid shipping label as an image on a web page. The customer is preferably instructed to print out the shipping label and to provide it to the shipping service with the package. Alternatively, at the step 1118, the returns processor may provide a shipping coupon, again on a web page to be printed out, that the customer can provide to a packaging or shipping service. The shipping service can take the coupon in exchange for the shipping of the 40 product and later redeem the coupon for payment by the system. At 1120, the returns processor optionally provides packing

instructions if the customer chooses to pack the product. At a step 1122, the returns processor optionally charges the customer or the retailer for the shipping charges.

V. CONCLUSION

In the preferred embodiment, the various methods disclosed in section IV are performed, preferably as parts of a single method by returns processor 300 to implement the product return paths disclosed in section II. The returns processor preferably performs many of the steps of the methods automatically through the returns processing system 500 and its code modules 524, web pages 512, database 522, and servers 510, 520 as disclosed in section III. In the alternative, the some or all of the methods may be performed by the retailer 100. It will be apparent to one skilled in the art that various combinations of the disclosed methods may be combined to achieve desired results.

10 While certain exemplary preferred embodiments have been described and shown in the accompanying drawings, it is to be understood that such embodiments are merely illustrative of and not restrictive on the broad invention. Further, it is to be understood that this invention is not limited to the specific construction and arrangements shown and described since various modifications or changes may occur to those of ordinary skill in the art without departing from the spirit and scope of the invention as claimed. It is intended that the scope of the invention be limited not by this detailed description but by the 15 claims appended hereto. In the claims, the return of a product shall be defined as the exchange for a credit, by a customer, of a product purchased from a retailer. A credit shall be defined as a partial or total refund, a replacement product, a retailer store credit, or equivalents thereof. In the method claims, reference characters are used for convenience of description only, and do not indicate a particular order for performing the method.

WHAT IS CLAIMED IS:

1. A returns processing system comprising:
  - a returns processing center; and
  - a returns processing server configured to make determinations of how to proceed with the disposition of returns based at least upon retailer-supplied disposition rules.
- 5 2. The returns processing system of Claim 1, wherein the returns processing server is configured to receive product condition information from an entity receiving a product.
3. The returns processing system of Claim 1, further comprising a customer information database.
4. The returns processing system of Claim 1, wherein the returns processing center is configured to receive 10 products originally purchased from a plurality of different retailers.
5. The returns processing system of Claim 1, further comprising a returns web server.
6. The returns processing system of Claim 5, wherein the returns web server is configured to receive requests from customers of a plurality of retailers to return products to the retailers from which the products were purchased.
7. The returns processing system of Claim 1, further comprising an auction web server.
- 15 8. The returns processing system of Claim 7, wherein the auction web server is configured to list returned products for sale on Web-based auctions.
9. A method comprising:
  - receiving a request from a customer of a retailer to return a product purchased from the retailer;
  - instructing the customer to ship the product to a third party;
- 20 10. receiving notice from the third party of the receipt of the product; and
- notifying the retailer of the receipt of the product.
10. The method of Claim 9, further comprising entering an agreement with the retailer to handle the return of products purchased from the retailer.
11. The method of Claim 9, wherein the third party is a liquidator.
- 25 12. The method of Claim 9, wherein the third party is the manufacturer of the product.
13. The method of Claim 9, wherein the third party is the vendor of the product.
14. A method comprising:
  - selling a product to a customer;
  - shipping the product to the customer;
- 30 15. receiving a request from a customer to return the product;
- instructing the customer to ship the product to a third party;
- receiving notice from the third party of the receipt of the product; and
- crediting the customer for the return of the product.
15. The method of Claim 14, further comprising receiving credit from the third party in exchange for the 35 product.
16. The method of Claim 14, wherein the third party is the manufacturer of the product.
17. The method of Claim 14, wherein the third party is a liquidator.
18. The method of Claim 14, wherein the third party is a returns processing center.
19. The method of Claim 14, wherein the third party is the vendor of the product.
- 40 20. A method for handling product returns, the method comprising:

(A) receiving a plurality of products, wherein each of the products is received from a respective customer who purchased the product from a respective retailer;

(B) identifying at least one of the products as capable of being restocked as new; and

5 (C) sending the products identified in (B) to the respective retailers from which the products were purchased.

21. The method of Claim 20, further comprising:

(D) identifying at least one of the products as suitable for sale at auction; and

(E) selling the products identified in (D) at auction.

22. The method of Claim 20, further comprising:

10 (F) identifying at least one of the products as defective; and

(G) sending the products identified in (F) to the respective manufacturers of the products.

23. The method of Claim 20, further comprising:

(H) identifying at least one of the products as defective; and

(I) sending the products identified in (H) to the respective vendors of the products.

15 24. The method of Claim 20, further comprising sharing proceeds resulting from the disposition of the products with the respective retailers from which the products were originally purchased.

25. A method comprising:

entering an agreement with a retailer to handle the return of products purchased from the retailer by customers of the retailer;

20 receiving from a customer of the retailer a product purchased from the retailer; and  
selling the product at auction.

26. The method of Claim 25, further comprising notifying the retailer of the receipt of the product.

27. The method of Claim 25, further comprising sharing the proceeds of the auction sale with the retailer.

28. A method comprising:

25 receiving disposition rules from a retailer;  
receiving, from a customer of the retailer, a product purchased by the customer from the retailer;  
inspecting the product; and  
proceeding with the disposition of the product according to the rules.

29. The method of Claim 28, further comprising entering an agreement with the retailer to handle the return of 30 products purchased from the retailer by customers of the retailer.

30. The method of Claim 28, further comprising notifying the retailer of the disposition of the product.

31. The method of Claim 28, further comprising sharing proceeds resulting from the disposition of the product with the retailer.

32. The method of Claim 28, wherein the disposition rules associate product conditions with disposition

35 actions.

33. The method of Claim 28, wherein proceeding with the disposition of the product comprises:  
determining that the product is capable of being restocked as new; and  
sending the product to the retailer.

34. A method comprising:

40 receiving, from a customer of a retailer, a product purchased by the customer from the retailer;

inspecting the product;  
communicating the condition of the product to the retailer;  
receiving instructions from the retailer for proceeding with the disposition of the product; and  
proceeding with the disposition of the product according to the instructions.

5. 35. The method of Claim 34, further comprising notifying the retailer of the disposition of the received product.

36. The method of Claim 34, further comprising purchasing title to the received product from the retailer.

37. The method of Claim 34, further comprising sharing proceeds resulting from the disposition of the product with the retailer.

10. 38. A method comprising:  
receiving a request from a customer of a retailer to return a product purchased from the retailer;  
requesting that the customer provide the condition of the product;  
receiving the condition of the product provided by the customer;  
selecting a location to which to have the customer ship the product based at least upon a likely condition of the product; and  
instructing the customer to send the product to the selected location.

15. 39. The method of Claim 38, wherein the likely condition of the product is the provided condition.

40. The method of Claim 38, further comprising determining the likely condition of the product.

41. The method of Claim 40, wherein the likely condition of the product is determined based upon at least the provided condition of the product.

20. 42. The method of Claim 38, wherein the location is selected further based at least upon information gathered through inspection of products previously returned by the customer.  
43. The method of Claim 42, wherein the location is selected further based at least upon product conditions provided by the customer in connection with previously returned products.

25. 44. The method of Claim 38, wherein the location is selected further based upon at least a score representative of the likely accuracy of the product condition provided by the customer.  
45. The method of Claim 38, wherein the location is selected further based upon a return frequency score.

46. The method of Claim 38, further comprising:  
receiving the product at the selected location; and  
inspecting the received product.

30. 47. The method of Claim 46, further comprising:  
determining, based at least upon the inspection, that the product is at a proper location for disposition; and  
proceeding with the disposition the product.

48. The method of Claim 38, further comprising:  
determining, based at least upon the inspection, that the product is not at a proper location for disposition;

35. and  
sending the product to the proper location for disposition.

49. A method comprising:  
selecting a location to which to have a customer of a retailer return a product purchased from the retailer, wherein the selection is based at least upon a likely condition of the product;  
40. instructing the customer to send the product to the selected location;

receiving notice that the product has been received at the selected location by a receiving entity; and receiving an observed product condition from the receiving entity.

50. The method of Claim 49, further comprising:  
selecting a second location to which to have the receiving entity send the product based at least upon the observed product condition; and  
instructing the receiving entity to send the product to the second location.

51. The method of Claim 50, further comprising:  
receiving the product at the second location; and  
inspecting the received product.

10 52. The method of Claim 51, further comprising:  
determining, based at least upon the inspection, that the product is at a proper location for disposition; and  
proceeding with the disposition of the product.

53. The method of Claim 51, further comprising:  
determining, based at least upon the inspection, that the product is not at a proper location for disposition;

15 and  
sending the product to the proper location for disposition.

54. A method comprising:  
receiving, from a retailer, an indication of the condition of a product being returned by a customer;  
selecting a location to which to have the retailer ship the product based at least upon a likely condition of  
20 the product; and  
instructing the retailer to send the product to the selected location.

55. The method of Claim 54, wherein the likely condition of the product is based upon at least the indication of  
the condition of the product.

25 56. The method of Claim 54, further comprising:  
receiving the product at the selected location; and  
inspecting the received product.

57. The method of Claim 56, further comprising:  
determining, based at least upon the inspection, that the product is at a proper location for disposition; and  
proceeding with the disposition of the product.

30 58. The method of Claim 56, further comprising:  
determining, based at least upon the inspection, that the product is not at a proper location for disposition;  
and  
sending the product to the proper location for disposition.

59. The method of Claim 54, wherein the indication comprises product condition information provided by the  
35 customer.

60. The method of Claim 54, wherein the indication comprises product condition information observed by the  
retailer.

61. A method comprising:  
selecting a location to which to have a retailer send a product returned by a customer of the retailer,  
40 wherein the selection is based at least upon a likely condition of the product.

instructing the retailer to send the product to the selected location;  
receiving notice that the product has been received at the selected location by a receiving entity;  
receiving an observed product condition from the receiving entity;  
selecting a second location to which to have the receiving entity send the product based at least upon the  
5 observed product condition; and  
instructing the receiving entity to send the product to the second location.

62. The method of Claim 61, further comprising:  
receiving the product at the second location; and  
inspecting the received product.

10 63. The method of Claim 62, further comprising:  
determining, based at least upon the inspection, that the product is at a proper location for disposition; and  
proceeding with the disposition of the product.

64. The method of Claim 62, further comprising:  
determining, based at least upon the inspection, that the product is not at a proper location for disposition;  
15 and  
sending the product to the proper location for disposition.

65. A method comprising:  
associating with a customer, product condition information provided by the customer for a first product purchased from a retailer;  
20 associating with the customer, observed product condition information for the first product based upon the observed condition of the first product as observed after the customer has returned the first product;  
receiving product condition information provided by the customer for a second product; and  
determining the likely condition of the second product based at least upon the product condition information provided by the customer for the first product, the observed product condition information for the first product, and the product condition information provided by the customer for the second product.

25 66. The method of Claim 65, further comprising:  
receiving the first product from the customer; and  
inspecting the first product.

67. The method of Claim 65, further comprising:  
30 selecting a location to which to have the customer ship the second product based at least upon the likely condition of the second product; and  
instructing the customer to send the second product to the selected location.

68. A method of determining the accuracy of information provided by a customer, the method comprising:  
(A) receiving product condition information provided by a customer for a first product to be returned;  
35 (B) subsequent to (A), receiving the first product from the customer;  
(C) subsequent to (B), obtaining observed product condition information for the first product by at least inspecting the first product; and  
(D) calculating a score based at least upon the provided product condition information and the observed product condition information.

40 69. The method of Claim 68, further comprising:

using the score as an indication of the accuracy of information provided by the customer.

70. The method of Claim 68, further comprising:

receiving product condition information provided by the customer for a second product to be returned; and determining the likely condition of the second product based at least upon the score and the product condition information provided by the customer for the second product.

5 71. A method of determining the accuracy of information provided by a customer, the method comprising:

(A) receiving product condition information provided by a customer for a first product to be returned;

(B) subsequent to (A), obtaining observed product condition information based at least upon an inspection of the first product by a party other than the customer; and

10 (C) calculating a score based at least upon the received product condition information and the observed product condition information.

72. The method of Claim 71, further comprising:

using the score as an indication of the accuracy of information provided by the customer.

73. The method of Claim 71, further comprising:

15 receiving product condition information provided by the customer for a second product to be returned; and determining the likely condition of the second product based at least upon the score and the product condition information provided by the customer for the second product.

74. A returns processing center comprising:

a receiving station for receiving returned products;

20 a visual inspection station configured for human visual examination of returned products; and

an inspection device configured to generate images of returned products while the returns products are contained within packaging.

75. The returns processing center of Claim 74, wherein the inspection device is an X-ray machine.

76. The returns processing center of Claim 74, further comprising a shipping dock.

25 77. The returns processing center of Claim 76, further comprising a storage facility.

78. The returns processing center of Claim 77, further comprising a packaging station.

79. A method for handling the return of a product purchased from a retailer by a customer, the method comprising:

30 (A) determining that the product will be received from the customer;

(B) listing the product for sale in a web-based auction;

(C) subsequent to (A), receiving the product from the customer;

(D) subsequent to (C), inspecting the product; and

(E) subsequent to (D), shipping the product to the winning bidder of the web-based auction.

80. The method of Claim 79, wherein (A) comprises instructing the customer to ship the product.

35 81. The method of Claim 79, further comprising receiving a request from the customer to return the product.

82. The method of Claim 79, wherein (D) comprises imaging the product using an imaging device.

83. The method of Claim 82, wherein the imaging device is capable of imaging an object through packaging material.

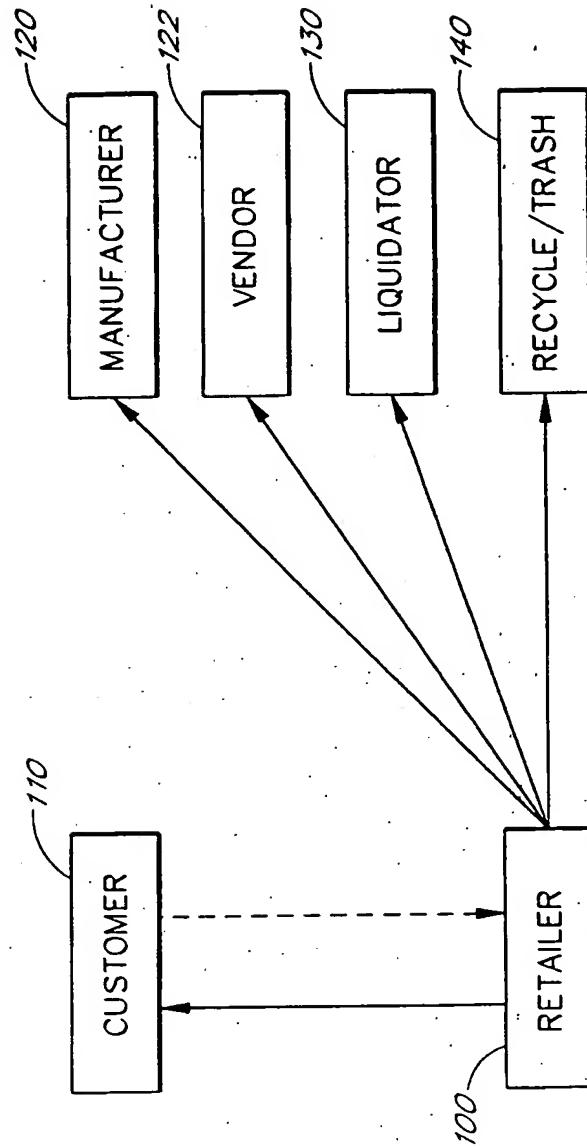
84. The method of Claim 82, wherein the imaging device is an X-ray imaging device.

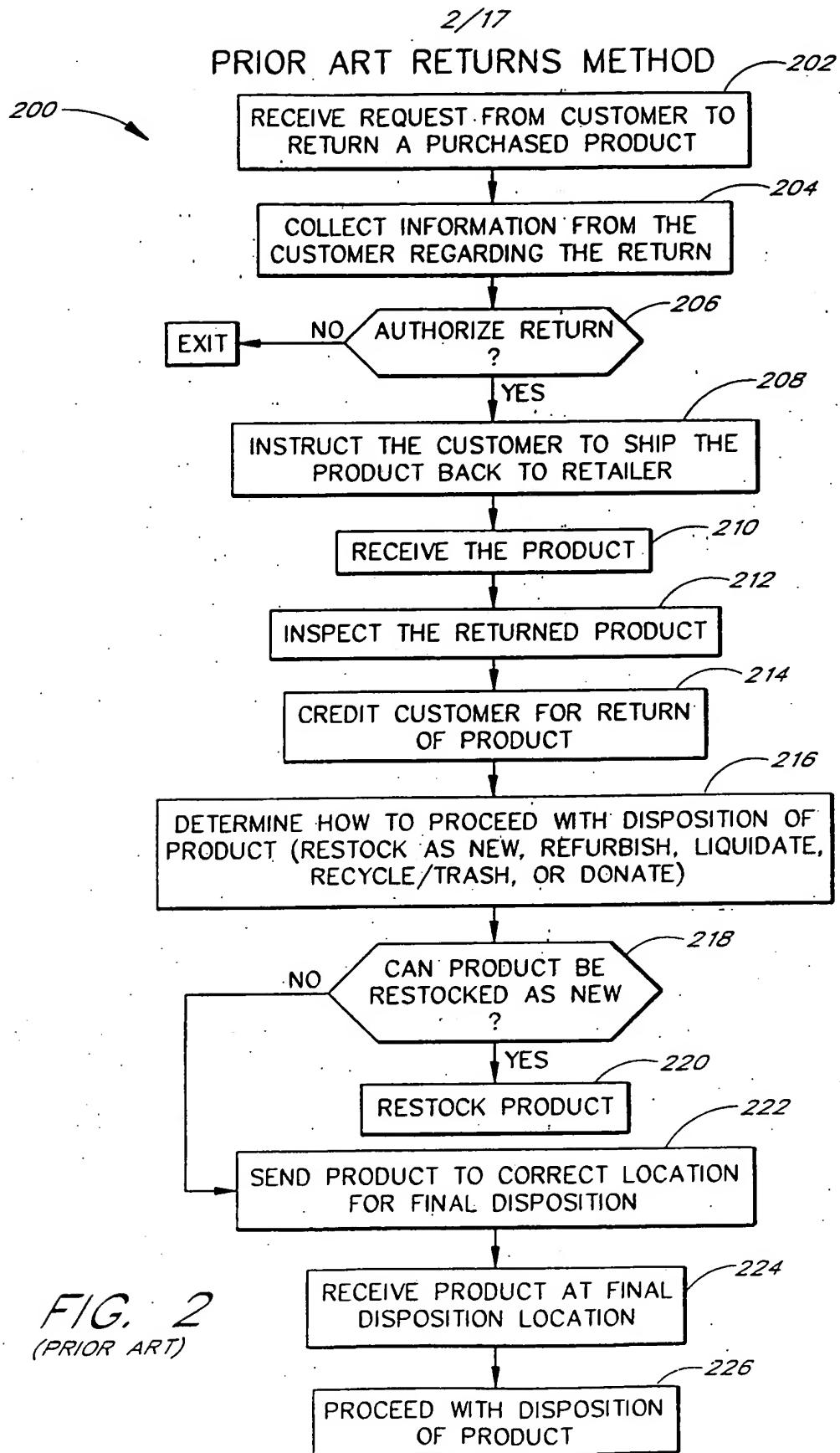
40 85. The method of Claim 82, further comprising storing an image of the product.

86. The method of Claim 79, wherein (B) is performed before (C).
87. The method of Claim 86, further comprising determining whether the product as inspected has been properly described in the auction listing.
88. The method of Claim 86, further comprising determining whether the product as inspected is in satisfactory condition to be shipped to the winning auction bidder.
89. The method of Claim 79, further comprising (F) prior to (B), determining that the product is to be disposed of through auction.
90. The method of Claim 89, wherein (F) is performed after (D).
91. A method comprising:
  - 10 receiving a request from a customer of a retailer to return a product purchased from the retailer;
  - requesting that the customer provide the condition of the product;
  - receiving the condition of the product provided by the customer;
  - creating a description of the product based at least upon the condition provided by the customer; and
  - listing the product, in conjunction with the description, for sale in an on-line auction.
- 15 92. The method of Claim 91, further comprising:
  - receiving the product from the customer;
  - inspecting the product; and
  - shipping the product to the winning bidder of the web-based auction.
93. The method of Claim 92, wherein inspecting the product comprises imaging the product using an imaging 20 device.
94. The method of Claim 93, wherein the imaging device is capable of imaging an object through packaging material.
95. The method of Claim 93, wherein the imaging device is an X-ray imaging device.
96. The method of Claim 93, further comprising storing an image of the product.
- 25 97. The method of Claim 92, wherein the product is listed for sale before it is received from the customer.
98. The method of Claim 91, further comprising determining whether the product as inspected has been properly described in the auction listing.
99. The method of Claim 91, further comprising determining whether the product as inspected is in satisfactory condition to be shipped to the winning auction bidder.
- 30 100. The method of Claim 92, further comprising prior to listing the product, determining that the disposition of the product is to be performed through an auction.
101. A method comprising:
  - listing a single item for sale on a first on-line auction;
  - 35 listing the same item for sale on a second on-line auction before the close of the first auction;
  - monitoring the bids at the first auction and the second auction; and
  - delisting the product from one of the auctions before either of the auctions closes.
102. The method of Claim 101, further comprising receiving a request from a customer of a retailer to return an 40 product purchased from the retailer, wherein the product is the item.
103. The method of Claim 102, further comprising:

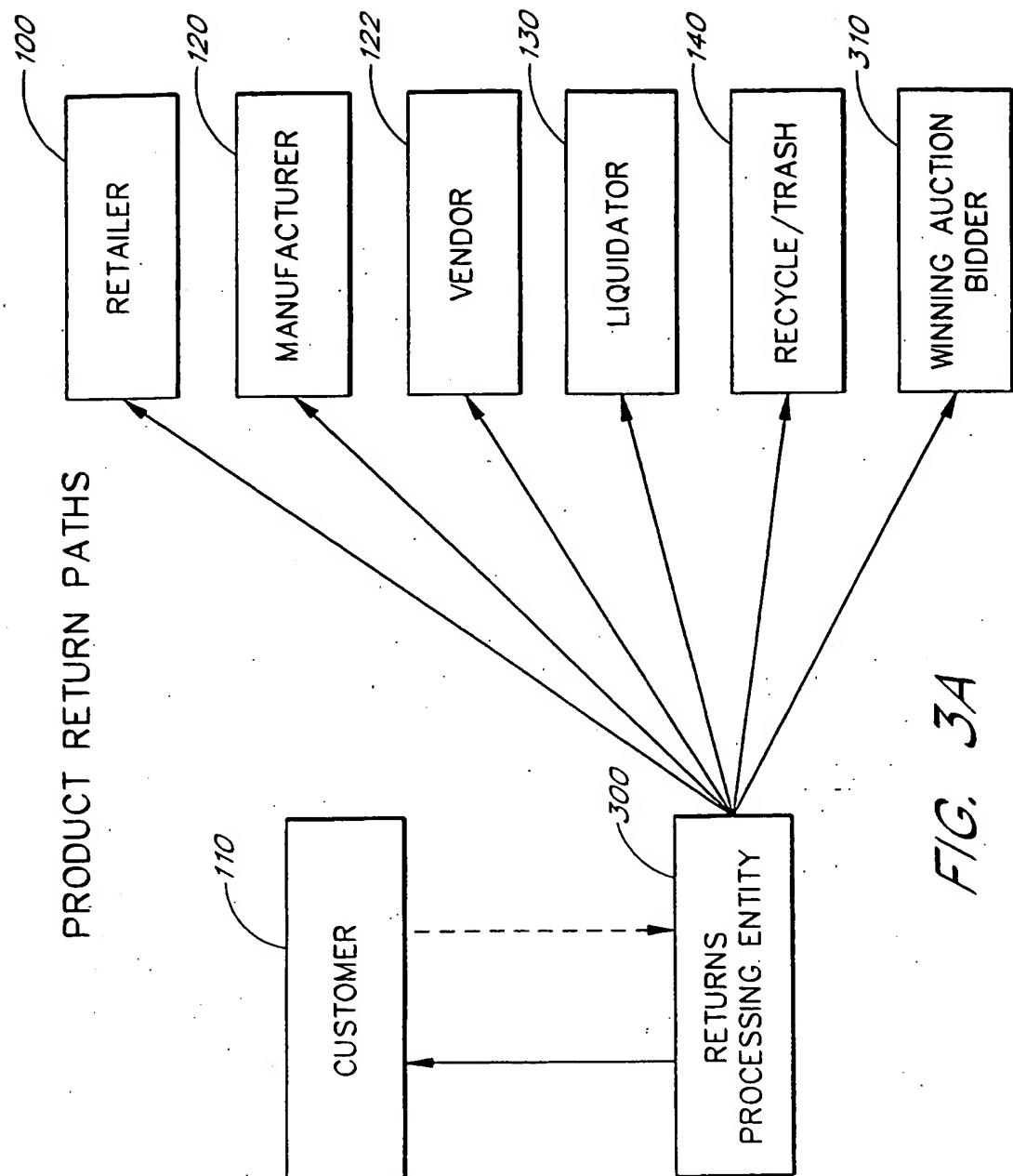
requesting that the customer provide the condition of the product;  
receiving the condition of the product provided by the customer;  
creating a description of the product based at least upon the condition provided by the customer; and  
incorporating the description into the listing of the item in the first and second auctions.

## PRIOR ART PRODUCT RETURN PATHS

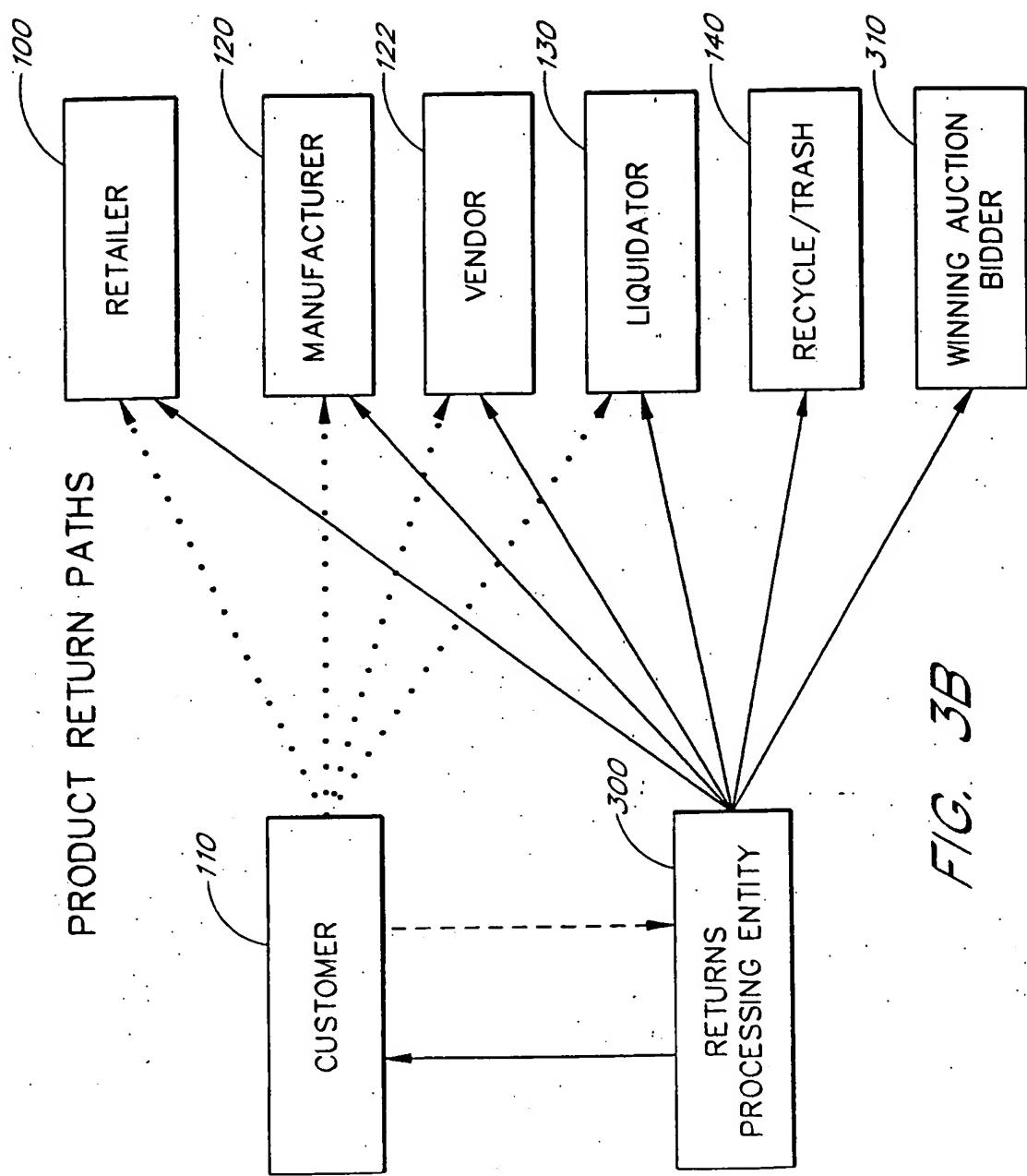
FIG. 1  
(PRIOR ART)



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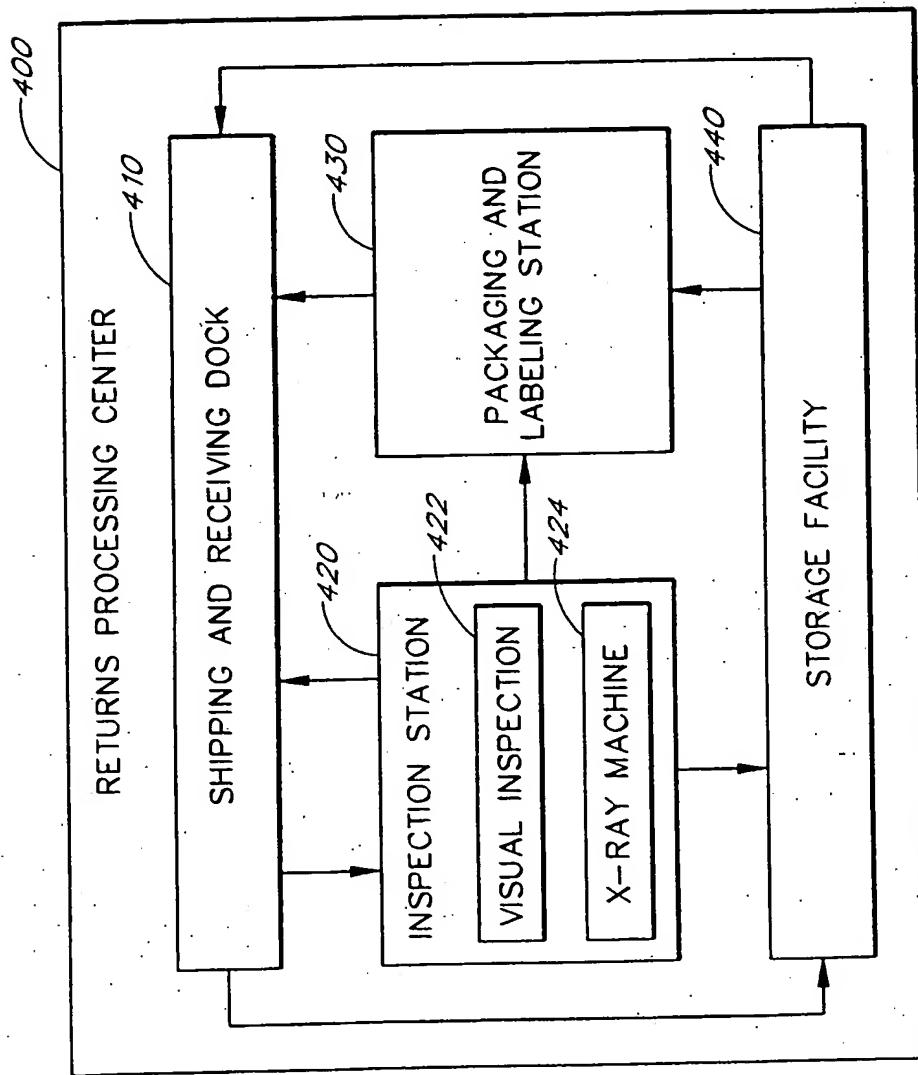


FIG. 4

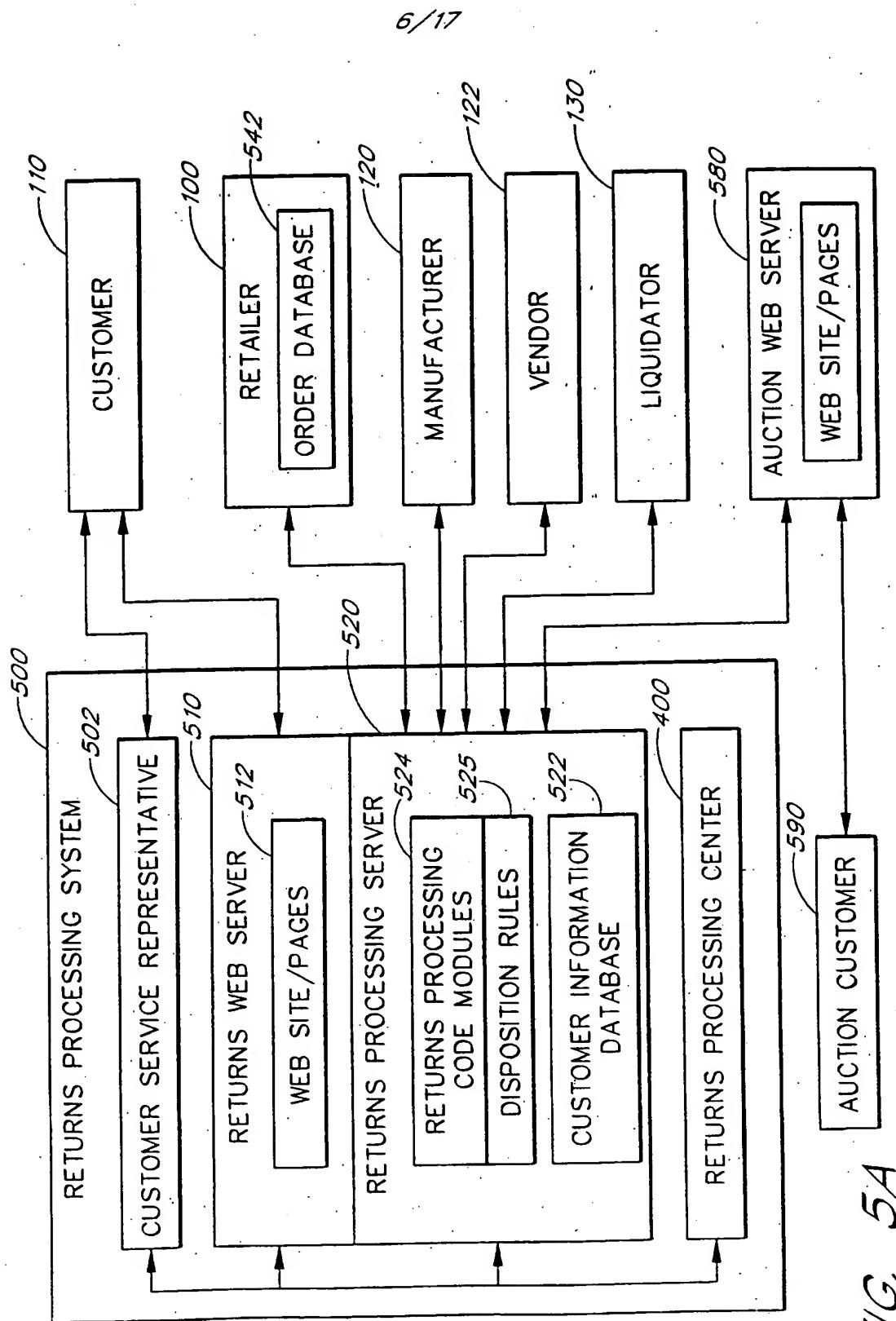
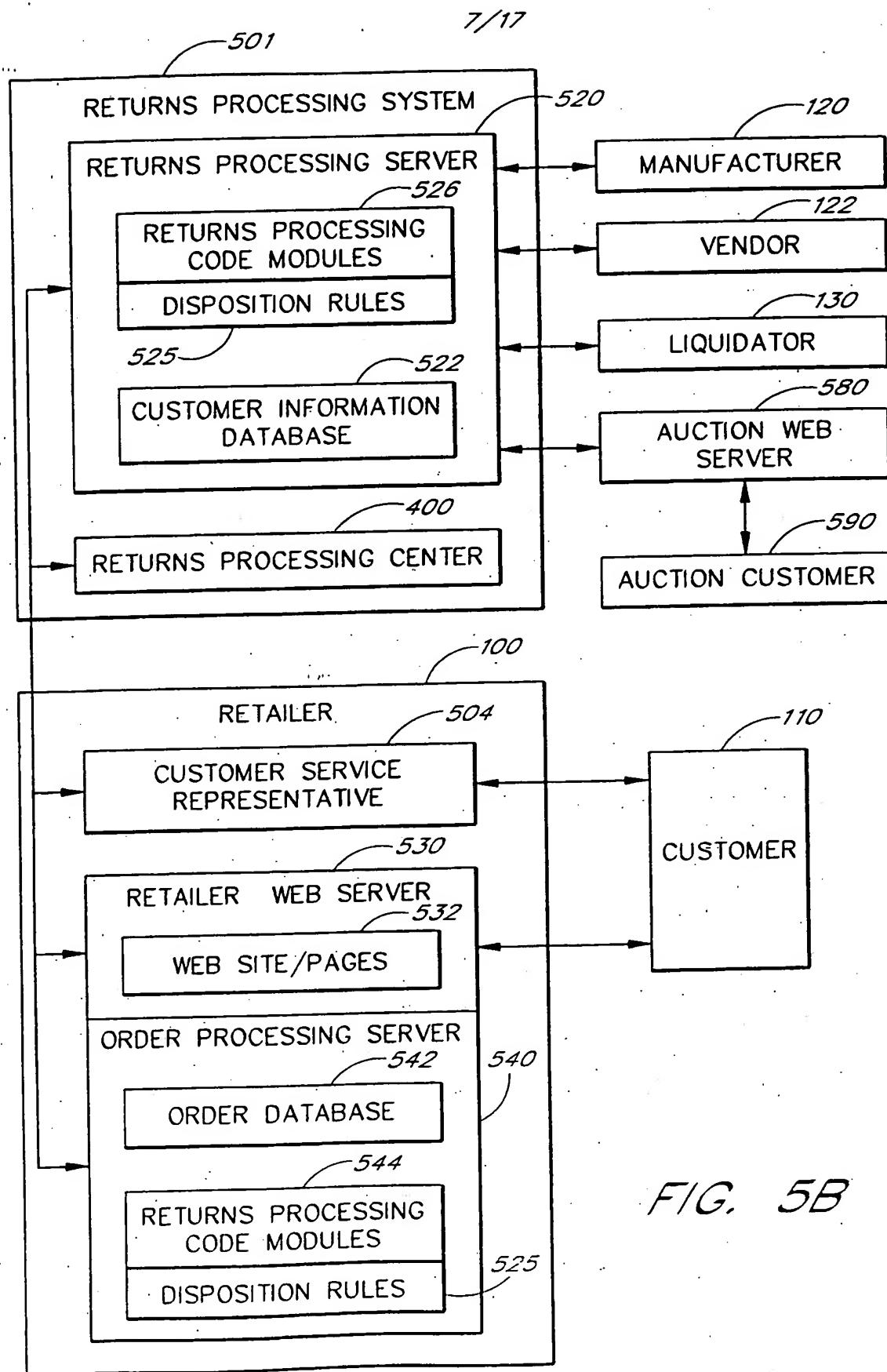


FIG. 5A



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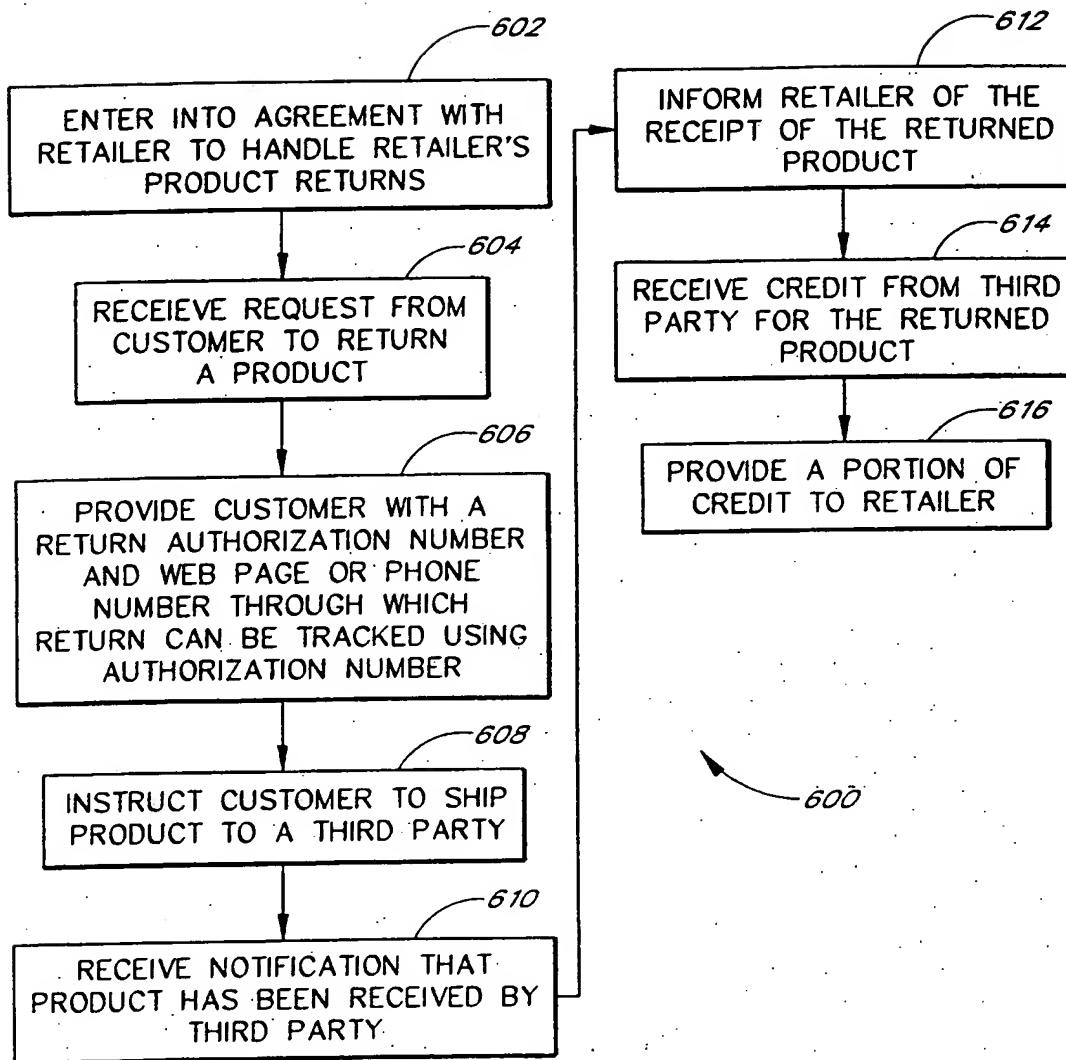


FIG. 6A

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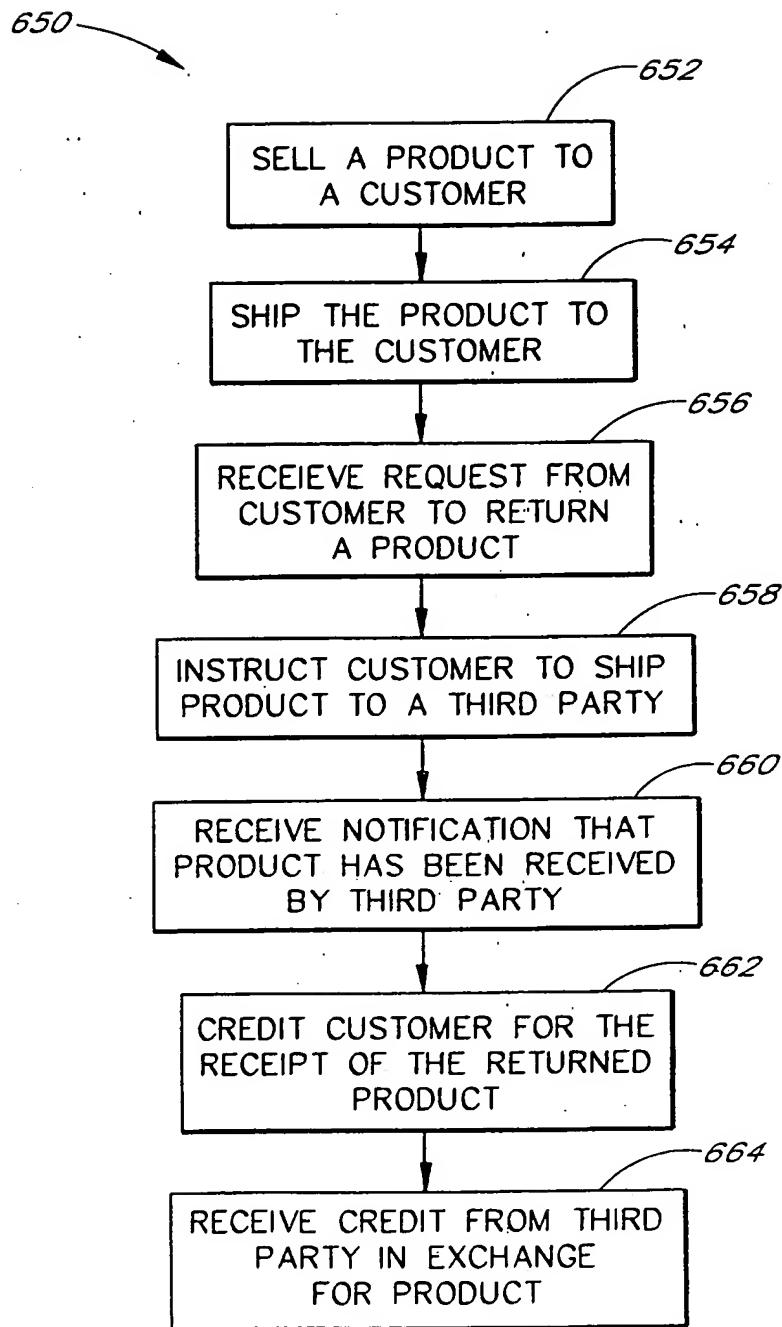


FIG. 6B

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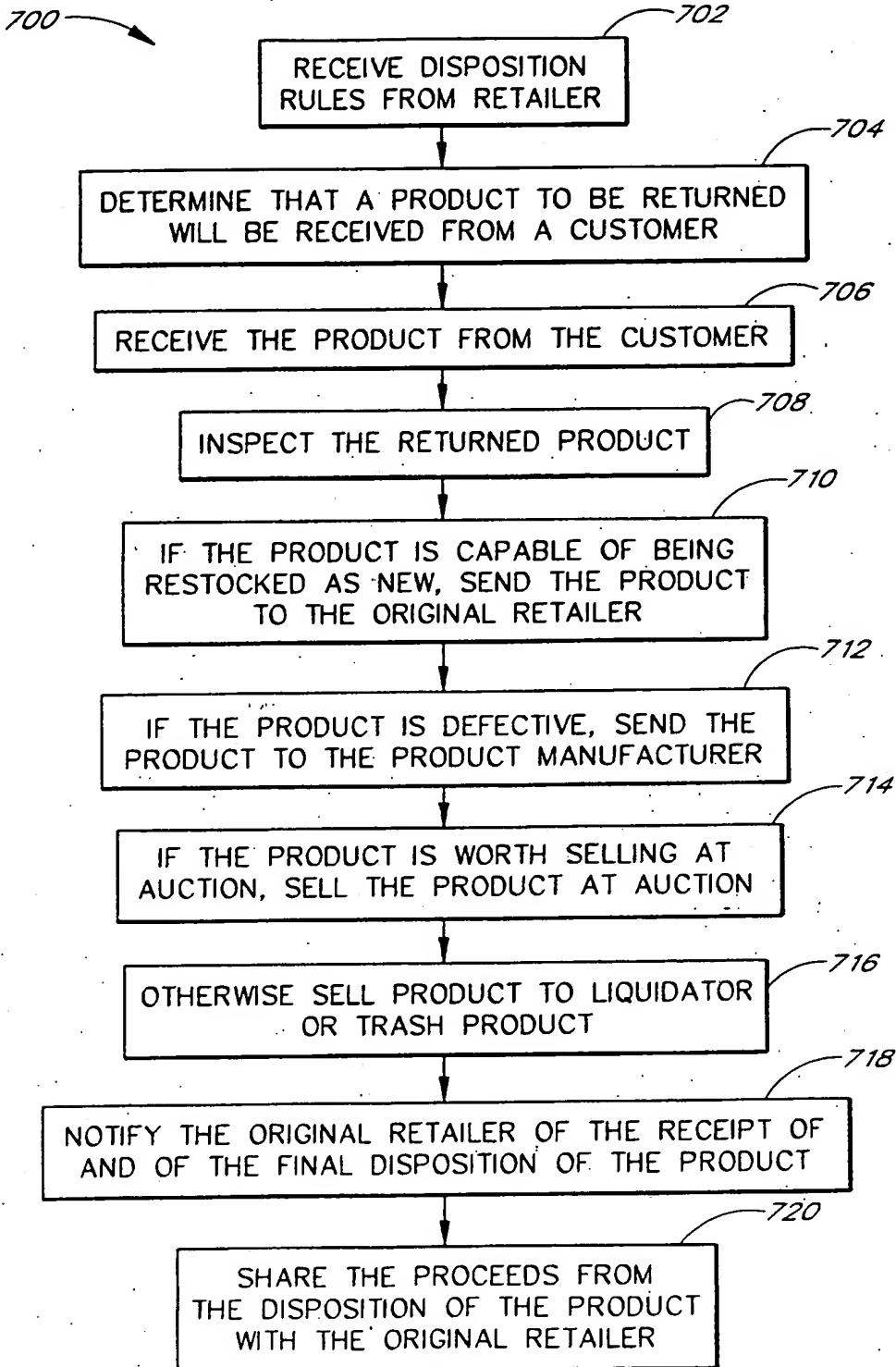


FIG. 7A

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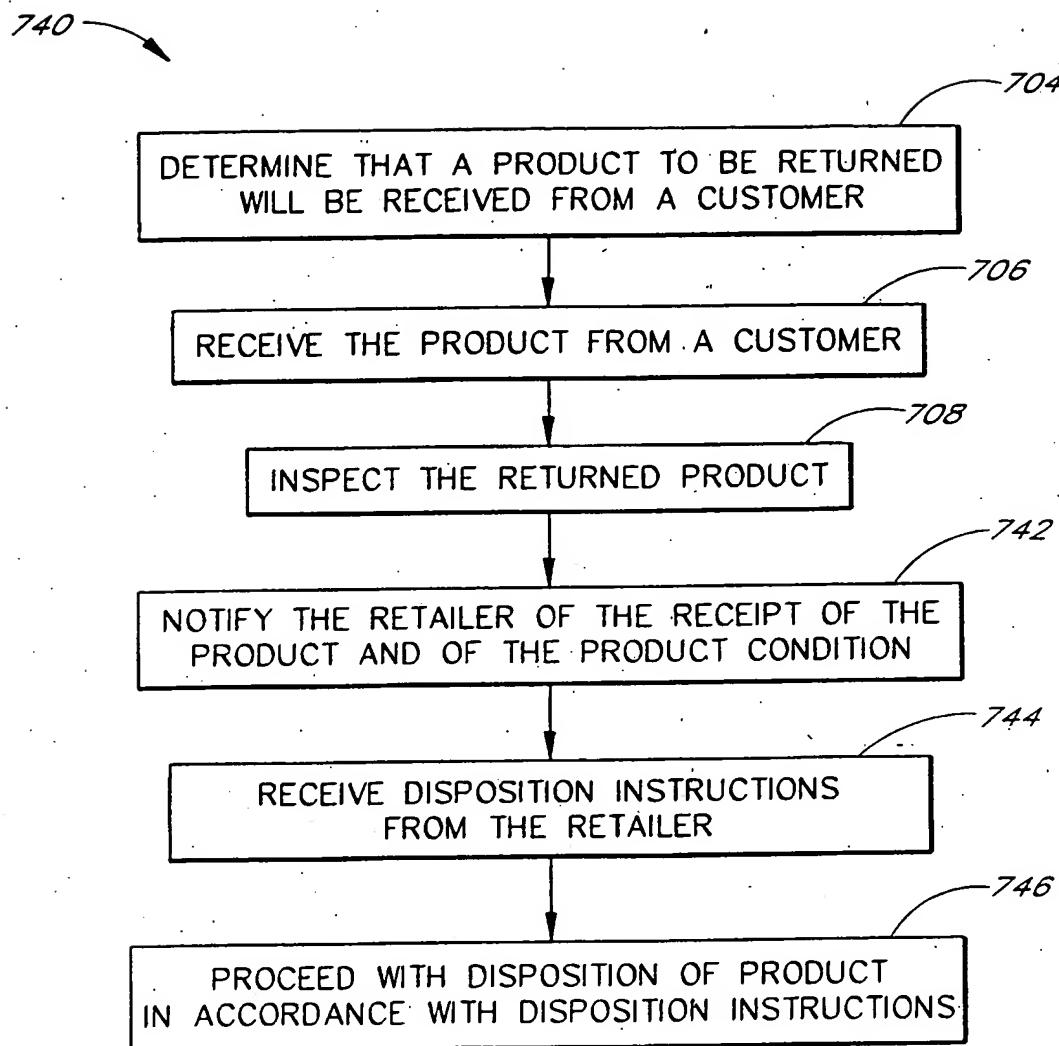


FIG. 7B

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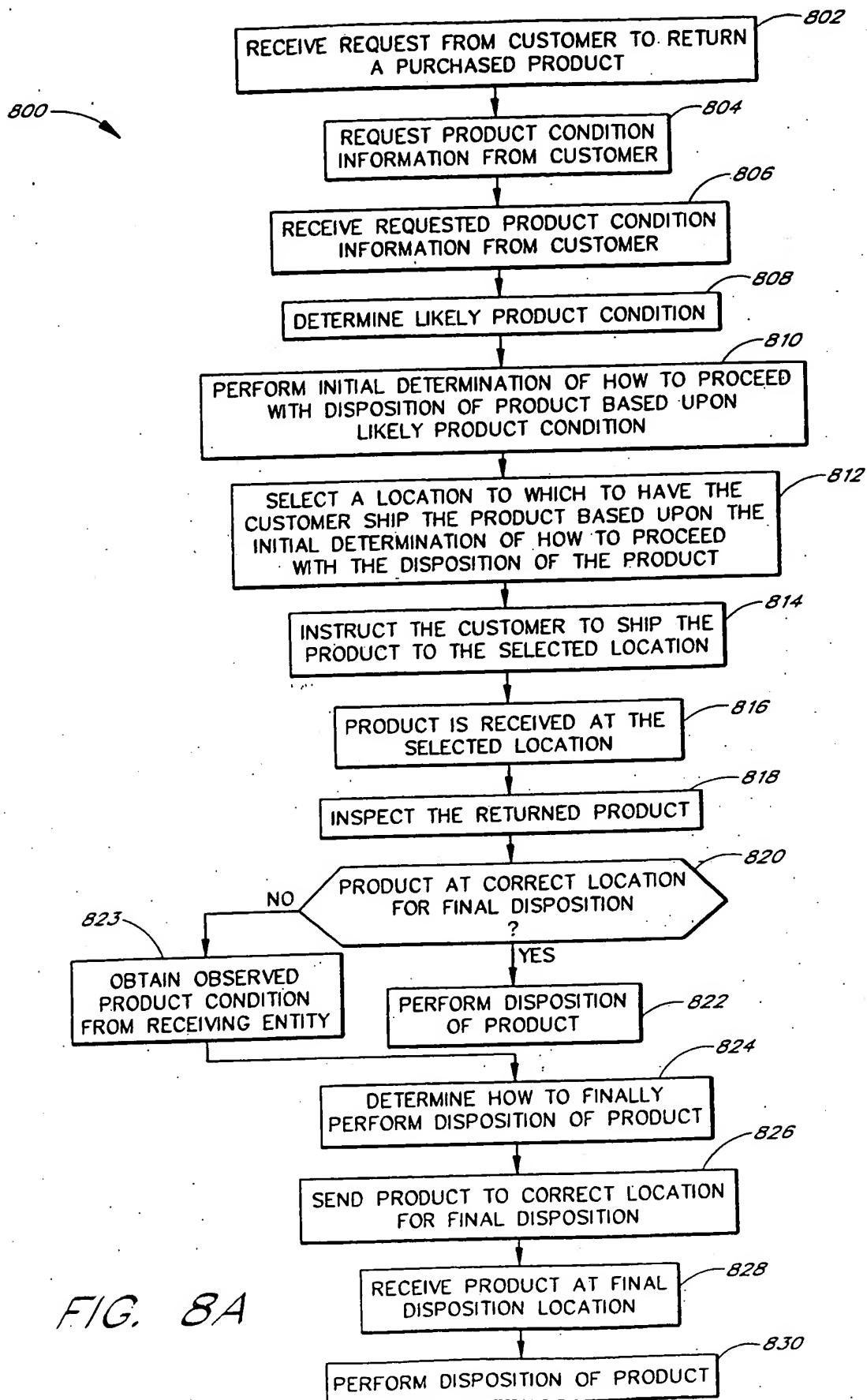


FIG. 8A

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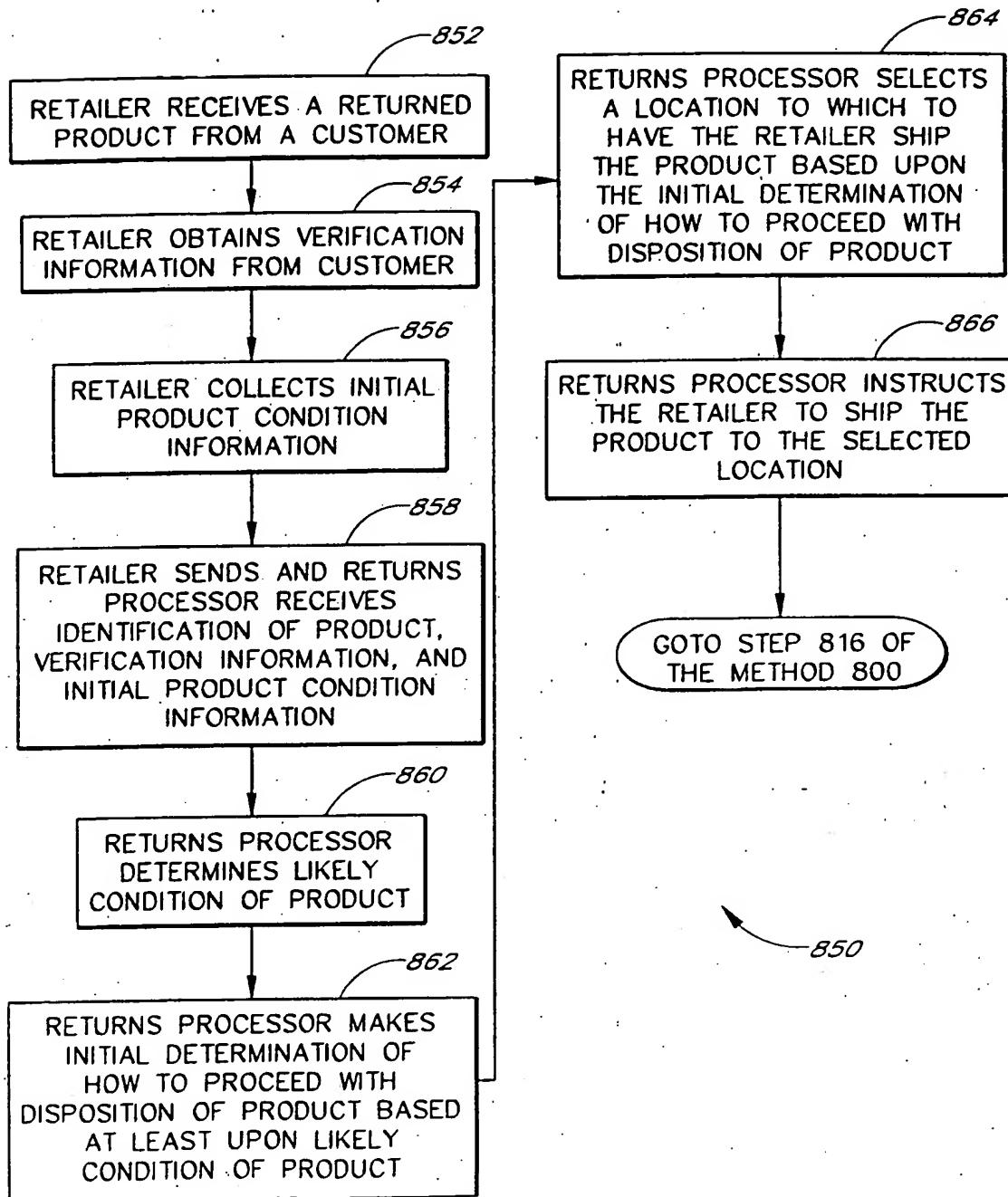


FIG. 8B

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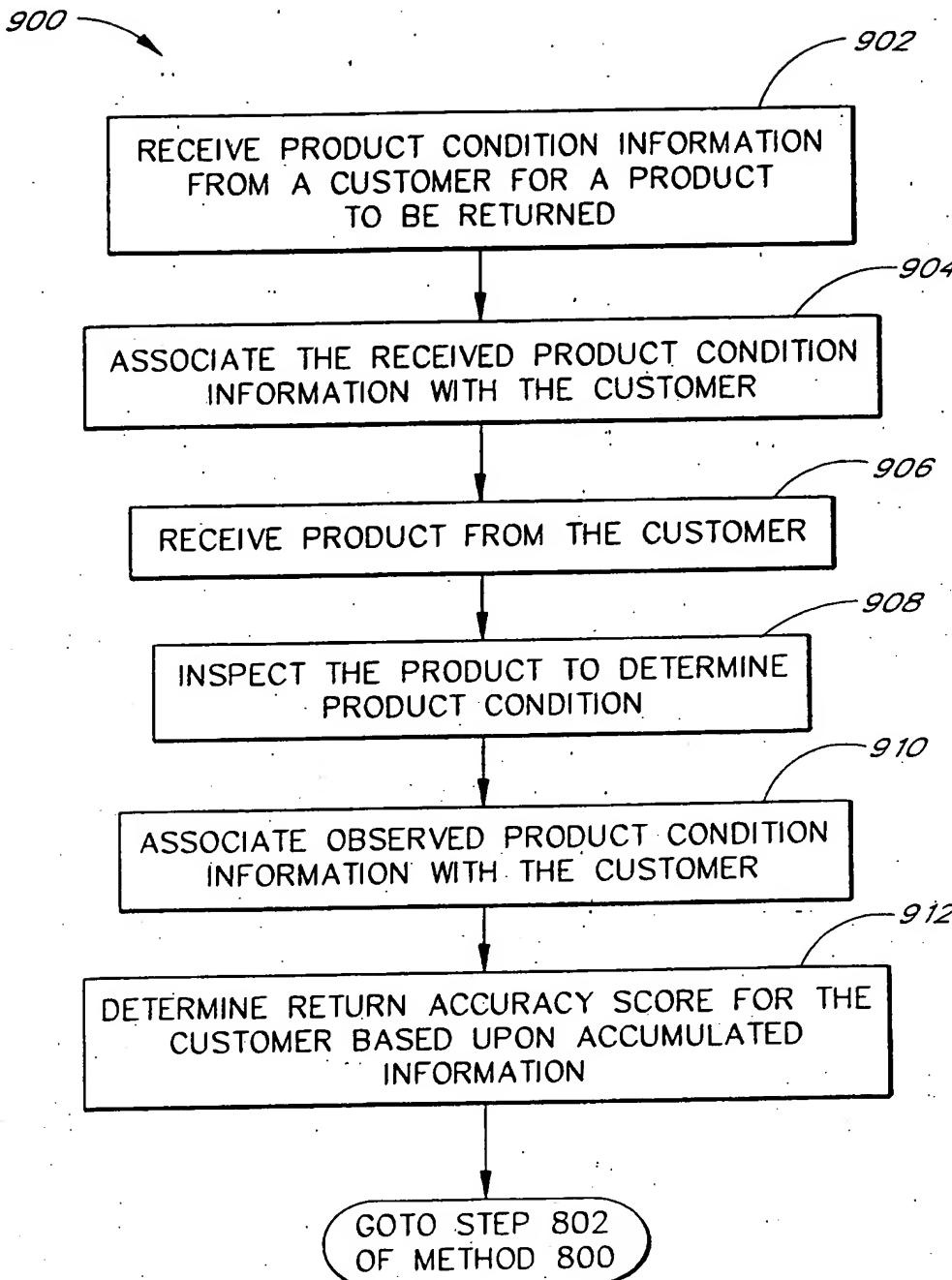


FIG. 9

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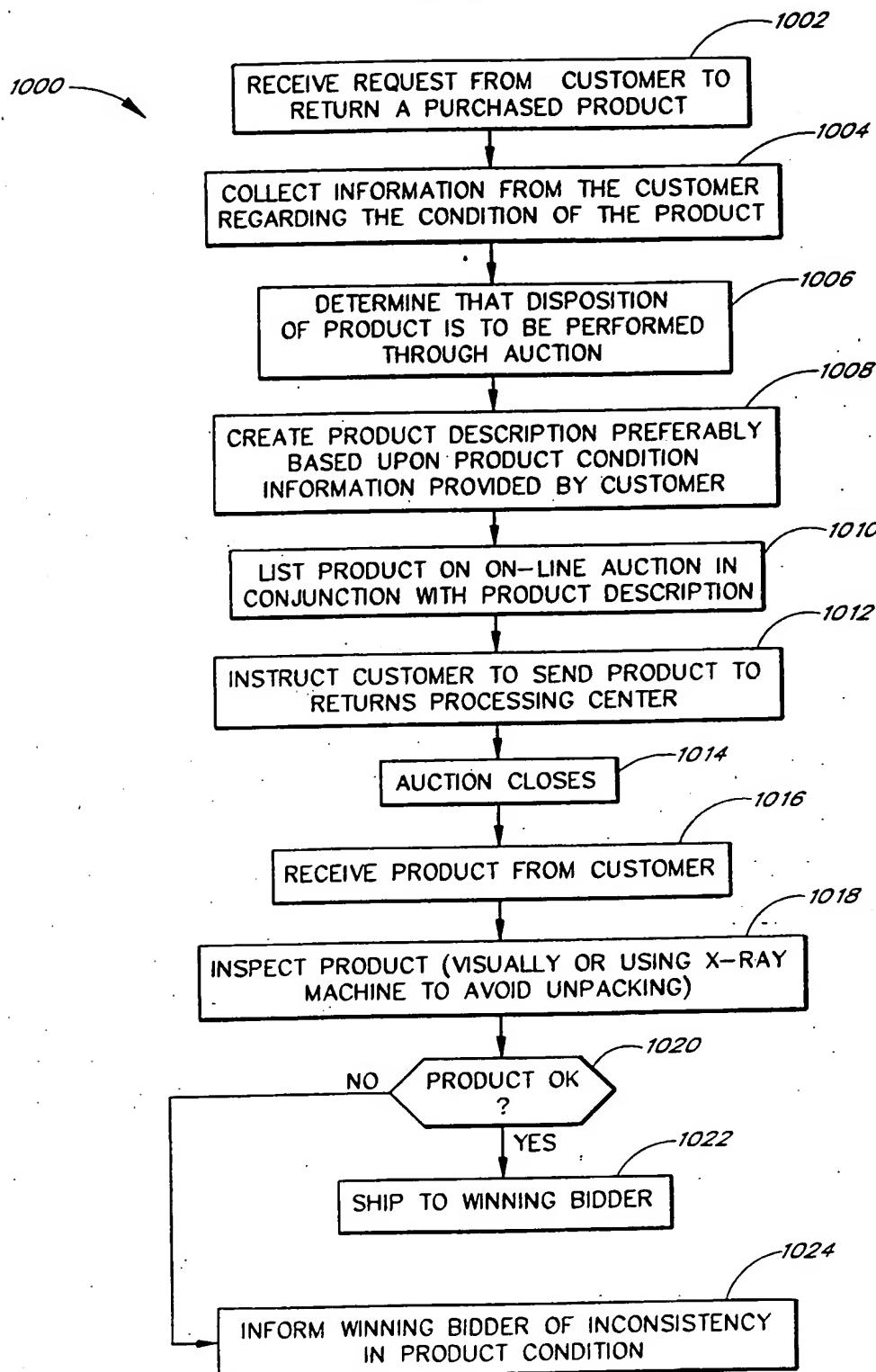


FIG. 10A

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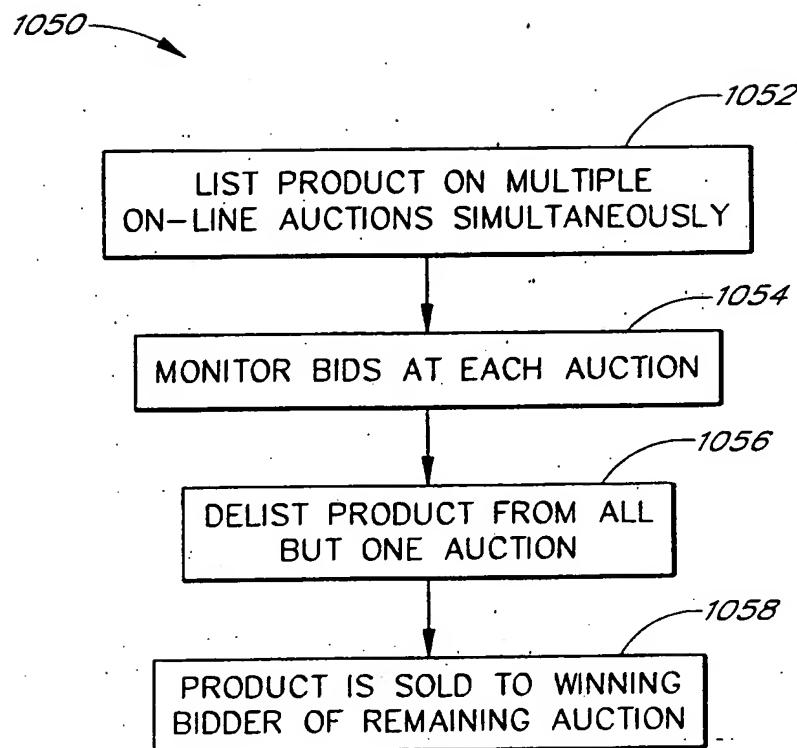


FIG. 10B

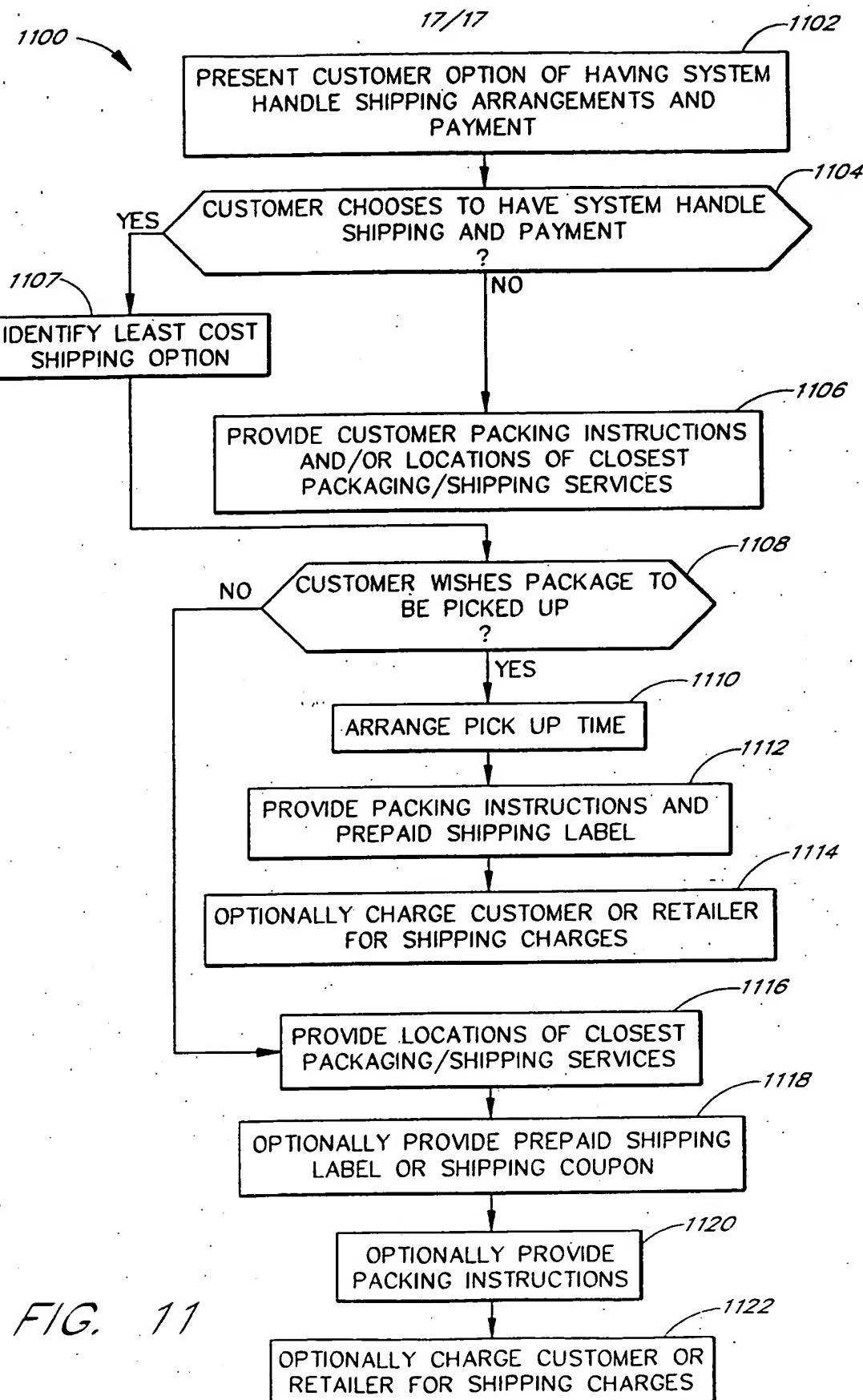


FIG. 11

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US01/06469

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06P 17/60

US CL : 705/26

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/26, 27, 28, 30

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST: RETURNS, RESTOCK, REIMBURSEMENT, INVENTORY  
DIALOG

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,712,989 A (JOHNSON ET AL) 27 JANUARY 1998, cols. 1&2 and cols. 22-31.	1-103

Further documents are listed in the continuation of Box C.

See patent family annex.

Special categories of cited documents:	
"A"	document defining the general state of the art which is not considered to be of particular relevance
"B"	earlier document published on or after the international filing date
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O"	document referring to an oral disclosure, use, exhibition or other means
"P"	document published prior to the international filing date but later than the priority date claimed
"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"A"	document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
04 JUNE 2001	21 JUN 2001

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer A. J. HEINZ Telephone No. (703) 308-1544
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